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INTERNATIONAL INSTITUTE OF AGRICULTURE

MONTHLY BULLETIN
OF
AGRICULTURAL ECONOMICS
AND SOCIOLOGY

REPRINT FROM THE 'INTERNATIONAL REVIEW OF AGRICULTURE'

YEAR XXIX — 1938

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ROME
VILLA UMBERTO I
1938

MONTHLY BULLETIN OF AGRICULTURAL ECONOMICS AND SOCIOLOGY

1938

Nº 1

STUDIES IN THE DEVELOPMENT OF INTERNATIONAL TRADE IN AGRICULTURAL PRODUCTS

Trade in Agricultural Products between France and its Overseas Possessions.

SUMMARY: I. *General characteristics of the trade between France and its colonies.* 1. Recent development. 2. Composition of this trade. — II. *Exports of French agricultural products to the French colonies.* Sugar, Wine. — III. *Imports into France of agricultural products of colonial origin.* 1. Competing products. A. Principal colonial products which compete with French agriculture: (a) Similar products: Soft wheat, African wines; (b) Products having the character of substitutes: Cane sugar and rum from the French West Indies, West African oil-seeds, rice from Indo-China. B. Means adopted for protection of French agriculture against colonial competition. 2. Products of a supplementary character. A. Foodstuffs. (a) Products known as colonial: Coffee, tea, cacao. (b) Fruit: Bananas, citrus fruits. (c) Cereals: Hard wheat, brewing barley. B. Raw materials: Rubber, timber, textile fibres. 3. Products partly competing and partly supplementing: Early vegetables and fruit from the Mediterranean countries.

One of the most remarkable aspects in the contemporary development of international trade is undoubtedly the shifting of the trade currents.

The constitution of imperial economies, whether in accordance with the principle of imperial preference, or by other means, as may be indicated by the legal system of relations between the mother-country and the dependencies, and the formation of regional blocks by means of bilateral agreements between countries complementary to each other from the economic standpoint, provide many new lines of enquiry. This article forms the first of a series. It is to be followed by studies on the trade in agricultural products between the nations of the British Empire since the Ottawa Agreements and within other international groups in Europe and elsewhere.

Whenever an enquiry is made into the economic relations existing between any country and its colonies, two questions present themselves: Do the colonies provide a market for the home country? Do the colonies supply to the home country those products which are not found within it? In examining, from the agricultural standpoint, the economic relations between France and her colonies,

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it is therefore proper to ask: do the French colonies provide marketing outlets for the products of French agriculture? Do they supply France with the food stuffs and raw materials of agricultural origin which are not to be found within France itself?

Before any attempt can be made to answer these questions, the general characteristics of the trade between France and her oversea possessions may be outlined.

I. — General Characteristics of the Trade between France and her Possessions.

I. — RECENT DEVELOPMENT OF THIS TRADE.

On reviewing the development of this trade in recent years an outstanding fact calls for notice: the trade currents between France and her possessions have remained, in the course of the last few years, much more stable than the trade currents between France and other countries.

Trade between France and her colonies has in fact been relatively little affected by those fluctuations of international trade which have been recently of unprecedented magnitude.

Following on the very large volume of war time imports and of those of the two years immediately succeeding the war, the total imports into France, the value of which in 1921 had fallen back to a figure of 22,068 millions of francs, reached in 1929 a maximum value of 58,227 millions. After that year imports began to decrease, with an especially rapid decline between 1931 and 1933, and in 1935 fell to a minimum value of 20,974 millions. At that time, French imports did not represent more than 38 per cent. of their level in 1929; from the beginning of 1936 there has been however a perceptible recovery.

The value of the total exports from France, during the same period, reached its maximum in 1926 with 59,678 millions of francs and after that year began to decrease. The decline was most marked in 1931 and 1932. In 1935 the total value of the exports was not more than 15,495.7 millions and there was no upward movement till the last quarter of 1936 following on the fall in French currency value.

There can be no doubt that all these variations are to be attributed in the main to price tendencies. Hence it is advisable to attach great importance to the index of the volume of external trade or to that of the total movement of external trade independently of price variations, an index calculated by the *Statistique générale de la France* (1). In the period under review, the index of the volume of imports reached a first maximum in 1924, then declined somewhat

(1) For the method of calculating this index see the *Bulletin de la Statistique générale de la France*, April and June 1929, April and June 1931 and October to December 1934.

markedly in 1925, and then began to rise, reaching a second maximum in 1931. From that time we have the following table:

TABLE I. — *Index-numbers of the Volume of Imports
Adjusted for Seasonal Variations*

(1913 = 100).

July 1931	149	December 1933	120
December 1931	137	End of 1934	104
July 1932	118	Average 1935	102
December 1932	119	Average 1936	113
July 1933	125		

This statement thus shows a steep fall broken by a slight recovery at the end of 1932 and at the beginning of 1933. The trough of the depression was reached in 1934. The volume of imports has increased since 1936, but in a much smaller proportion than the value.

As regards exports, the index of their aggregate volume showed a rapid advance up to July 1928, the date of the stabilisation of the franc. It fell at the end of 1928 and also in the first quarter of 1929, rising to 152 in the third quarter of 1929.

The figures of the subsequent period may be shown in the following table:

TABLE II. — *Index-numbers of the Volume of Exports
Adjusted for Seasonal Variations*

(1913 = 100).

September 1929	152	Average 1933	88
Average 1930	137	" 1934	90
" 1931	115	" 1935	81
" 1932	90		

We have thus a steep fall from 1929 to 1933, then a check in the decline in 1933-34 and a further fall in 1935. The volume of exports rose, as did the value also, beginning from the end of 1936, but in a much smaller proportion than the value.

At the same time the trade of the French colonies very considerably increased between 1926 and 1928-1929 (1). In the course of the subsequent long and profound depression, the external trade of the French colonies was much less affected than that of France, and was hardly affected at all in volume. The trade between France and the colonies suffered less from the depression than either the total of the external trade of France, or the total of the external trade

(1) DEPOD, Pierre: Le commerce extérieur des territoires français d'outre-mer. *Bulletin de la Statistique générale de la France*, April-June 1934.

of the colonies. Also, the share of the colonies in the external trade of France increased considerably as appears from the following table:

TABLE III. — *Proportional Share of the French Colonies in the External Trade of France.*

Years	Imports	Exports	Years	Imports	Exports
1928	12.6 %	13.4 %	1933	23.7 %	32.4 %
1929	12 %	16.3 %	1934	25.3 %	30.9 %
1930	12.4 %	18.9 %	1935	25.7 %	31.6 %
1931	14.7 %	20.7 %	1936	28.5 %	33.4 %
1932	20.9 %	31.5 %			

The increase in the percentages in 1936, in consequence of the marked advance of the imports in value and of the recovery in exports, did not in any way correspond to the smallest decline in the total external trade of France but rather to a real development. In the first three quarters of 1937, the trade of France with other countries, on the contrary, showed an even larger expansion than the trade between France and the colonies and the share of these in the external trade of the mother country fell during those months to 25 per cent. approximately (1).

2. — COMPOSITION OF THE TRADE BETWEEN FRANCE AND ITS COLONIES.

On examining the composition of the trade between France and its possessions, it will be noted that France exports to these countries mainly manufactured products in a proportion of 70 per cent., which is even higher than the proportion of such products in the total exports to all countries. On the other hand the import into France of products of this class from these countries is very small, representing in 1935-36 only one per cent. of all imports from the colonies into France. France imports from the colonies mainly raw materials for its industries and foodstuffs. These latter, which constitute always the greater part of exports from colonies, are all agricultural products. In 1935 and 1936, these represented 75 per cent. of colonial imports into France. The raw materials entering into this trade are mainly agricultural products, among which those bulking most largely in French colonial exports are oil-seeds and cabinet making timbers of West Africa and Equatorial Africa (2).

(1) Figures communicated by the *Administration des Douanes* in October 1937 for the first nine months of 1937.

(2) The above information has been taken from the article already cited by M. Pierre DEPOID in the *Bulletin de la Statistique générale de la France* of April-June 1934, and, for the last few years, from "Le commerce extérieur" by Professor WHILLER, in the annual review for 1936 published in the *Revue d'Economie politique* of May-June 1937, in which one part of each article is given to the trade between France and other countries and the other to trade between France and the colonies.

The increase in the share of the colonies in the external trade of France is far from corresponding closely to the variations in the composition of the external trade, especially in respect of the exports. The composition of the total French exports has in fact varied but little since 1929.

As regards the composition of the imports, the proportion of imports of food stuffs in the total imports into France between 1930 and 1933 rose from approximately 23 to 36 per cent., that is to say, the increase in this proportion was comparatively much less than the increase in the share of the colonies in the imports during this same period. Moreover this proportion fell again to 30 per cent. in 1934, while the share of the colonies in the imports into France continued to rise. This latter increase thus does not seem to be exclusively due to the composition of colonial trade and the relative stability of the demand for food stuffs. It is accordingly necessary to enter upon a detailed examination of the variations which have occurred in the contribution of the colonies to the trade in the main agricultural products (1).

II. — Exports of French Agricultural Products to the Colonies.

Speaking generally, the colonies of France do not form an important market for the products of French agriculture. A remarkable exception however has to be noted, *viz.*, sugar.

1. *Sugar.* — Large quantities of sugar are exported from France to the French African colonies where it is consumed largely by the natives whose national drink is heavily sweetened tea with peppermint added. The consumption of sugar in these countries was well maintained during the crisis, as may be seen from the following tables:

TABLE IV. — *Total Imports of Sugar by Weight into Algeria, Tunis and Morocco.*

(Index base: 1929 = 100).

	1929	1930	1931	1932	1933	1934	1935	1936
Algeria	100	109	108	106	108	106	105	111
Tunis	100	109	97	103	97	100	94	85
Morocco	100	97	104	109	113	108	115	127
Index of the three countries taken together	100	102	104	107	109	106	109	116

(1) The *Bulletin de la Statistique de la France* of July-September 1934 contained tables showing the trade of France with its possessions for the chief products, in 1913 and from 1929 to 1933. Information relating to the succeeding years has been published each year in the July-September numbers. The last which appeared in 1937 contains, besides the information relating to 1936, a retrospect of the years 1913 and 1929-1935. It is this source which has been mainly utilised for this detailed study.

The imports of sugar coming from France into these three countries have amounted to the following quantities from 1929 to 1936:

TABLE V. — *Imports of Sugar of French Origin into Algeria, Tunis and Morocco from 1929 to 1936, in Thousands of Metric Tons (1).*

	1929	1930	1931	1932	1933	1934	1935	1936
Algeria	65	73	73	71	73	72	70	76
Tunis	33	37	33	35	33	34	32	29
Morocco	129	123	129	123	118	109	109	92
Total for the three countries . .	227	233	235	229	224	215	211	197

Transforming these figures into index numbers on the basis of 1929 = 100, the following table is obtained:

TABLE VI. — *Index-numbers of Sugar Imports in Weight from France into Algeria, Tunis and Morocco from 1929 to 1936.*

	1929	1930	1931	1932	1933	1934	1935	1936
Algeria	100	112	112	100	112	111	107	117
Tunis	100	112	100	109	100	103	97	88
Morocco	100	95	100	95	91	84	84	71
Index of the three countries together	100	103	104	101	99	95	92	87

It will be noted that the imports of French origin reached their maximum in 1931 at a level not much above that of 1930; subsequently they have decreased continuously, while the consumption for the three colonies increased up to 1933, showed a decline in 1934 only and recovered in 1935 and especially in 1936. On the other hand the consumption of the group Algeria-Tunis which declined in 1931 as compared with 1930 remained practically stationary in 1932 and 1933, while it was the Moroccan consumption which continued to increase. Now, Algeria and Tunis draw their supplies of sugar almost exclusively from France; Morocco, which absorbs more sugar than the other two countries taken together, draws an increasing proportion from other countries; the share of France in the Moroccan imports of sugar was 97 per cent. in 1930, fell to 95 in 1931, to 86 in 1932 and to 80 in 1933. In 1935, when Moroccan consumption, after having declined somewhat in 1934, again recovered, the imports from France remained stationary, and in 1936 the share of France in the sugar imports of Morocco fell to 55 per cent.

(1) The statistics collected by the *Bulletin de la Statistique générale de la France* relating to the imports into these countries of sugar coming from France, on the one hand, and on the other those relating to exports from France into these countries—the former taken from the colonial statistics and the latter from French statistics—do not agree. It is for this reason that for establishing a comparison as to sugar consumption in these countries it has been judged preferable to utilise the figures of the imports of these countries from France rather than those of the exports from France into the countries.

2. *Wine.* — The exports of wine from France to the colonies are not very large in absolute figures. The French colonies most largely populated by Europeans are countries, not only wine producing but also wine exporting. Morocco, which for some time imported wine, is becoming an exporter. Such, however, is the unsatisfactory position of the French wine export, that the French colonies taken as a whole form the best customer in wine for the mother country, and in 1935 and 1936 the exports of wine into the French colonies represented nearly one third of the total exports of French wine. Among the French colonies, the largest importer of wine is French West Africa. Till recent years, however, this colony drew its supplies half or nearly so from France and Algeria and the remainder from Spain. The best customer of France and Algeria, among the French colonies, up to 1936 has been Indo-China. Moreover, for table wines, Indo-China, which in 1930 occupied the fifth place and in 1931 the fourth place among the customers of France and Algeria, in 1932 took the third place after Switzerland and Belgium, and in 1934 even took the second place immediately after Switzerland and before Belgium. It will not escape notice that of these three best customers of France and Algeria jointly for table wines, Indo-China has a currency linked with the French currency and Switzerland and Belgium constituted, up to March 1935, with France itself and the Netherlands, what was known as the gold block, whereas in those of the other customer countries of France which had not adopted control of the exchanges, the currency was depreciated in relation to gold and to the franc. It is indeed possible that the depreciation of the pound sterling had some connection with the considerable decrease in 1932 of the exports of French wine into Great Britain. Further, the maintenance of the gold standard in France up to the autumn of 1936 may have had the effect of preventing the re-opening of the American market for wine, which took place in December 1933, some months after the dollar crisis, from having all the results anticipated by some French exporters.

III. — Imports into France of Agricultural Products of Colonial Origin.

Although the maintenance of the gold standard in France during the five years from October 1931 to October 1936 may have had an adverse effect on the exports of France both in wines and in manufactured products, and, hence, have contributed to the increase of the share of the French colonies in French exports, this influence of monetary factors, discoverable in the exports, has been in no way apparent in the imports into France of agricultural products of French colonial origin. Theoretically the fall of the foreign exchanges between 1931 and 1936 should have had the effect of encouraging imports from foreign countries—for example, agricultural products from Australia and from Canada—and of reducing the share of the French colonies in the imports into France (1). This

(1) The publications of Prof. WEILLER: *L'influence du change sur le commerce extérieur*, 1929, and *Le block sterling et la reprise britannique*, in *Politique monétaire*, Sirey 1936, have shown that the interplay of these influences is far more complex than is usually supposed.

was not however the case. The share of Canada in the imports made by France decreased in 1932 and 1933; in particular Canadian cereal consignments decreased after 1932 and up to 1934. Imports of tea and of jute from India showed a decrease in 1932. After the fall of the dollar in 1933 and 1934, there was a reduction in the imports into France of agricultural products from the United States. These seemingly paradoxical phenomena appear to be due, in so far as raw materials are in question, to the contraction of the manufacturers' demand in France, the consequence of the decline in industrial production; and so far as concerns foodstuffs, more especially to the measures of protection taken by France against what is known as "dumping of exchange."

The competition of countries with depreciated currency has proved to be mitigated by the fact of these various circumstances.

The above circumstances have had no influence on the imports from the colonies, in any case none for the foodstuff products. Colonial imports of this category have, on the contrary, been encouraged and the more so when in direct competition with the agriculture of the mother-country.

No measure of protection has been taken against Algeria whence comes, with a certain quantity of wheat, by far the greater part of the table wines imported into France so formidably competing with the vine-growing of the South. In respect of the wheat and wine from other colonies, France has taken milder measures than for similar commodities from foreign countries. Another important element in colonial exports is the cane sugar from the French West Indies, competing with beet sugar, while its joint product, rum, competes with the brandy and other alcoholic liquors of the mother country. The restrictions on imports of these commodities are much more moderate than those placed on similar commodities of foreign origin. The oil-seeds of West Africa freely enter French territory although they compete both with the vegetable oils and animal fats of France and also with the olive oil of Algeria and Tunis. Against the rice which holds the first place in the exports from Indo-China and which competes with the secondary cereals of the mother country, and, in years of surplus production, with wheat itself, the only measures that have ever been taken are very indirect and greatly varying in effectiveness. For the maize of Indo-China, which comes immediately after rice in the exports from this colony, the only possible outlet is the market of the mother country where it is protected against foreign competition, the quotas of maize from other countries being lately much reduced.

In addition, the traditional system, to be departed from only slowly and reluctantly, of a more or less complete assimilation between mother country and colonies, in principle protected in the colonies the same commodities, and to the same extent, as in the mother country.

The result is that the products which indisputably compete with those of the mother country are just those the cultivation of which obtains the most encouragement. This was the logical, if somewhat unexpected, effect, of the commercial and colonial policy of France. The seriousness of the situation will be realised when it is added that, for certain of these products, French consumption appears to be not far from saturation point. And thus, under pressure of circumstances, the attitude of France is changing and the basic principles of this policy have

been gradually modified. The Government has been induced to take measures of protection against colonial agriculture itself.

On the other hand, an endeavour is being made to direct this agriculture towards the products which supplement French agriculture. No encouragement of these products could possibly result from the drop in the prices of agricultural products on the world market at the crisis of 1929, nor from the traditional policy of France the effect of which was to give them much less protection than was given to competing products. The encouragement given to-day is, in contradistinction to that by which the competing products actually benefit, fully thought out. Recent as it is, this new policy, as will be seen, already yields appreciable results on some particular points.

I. — COMPETING PRODUCTS.

A. — *Principal Colonial Products which Compete with French Agriculture.*

(a) *Similar Products.*

Soft Wheat. — Since 1933 nearly the whole of the foreign soft wheat imported into France has been under the customs system of temporary admission transformed in 1937 into the system of compensating exports in advance. In addition, permits are given for the import of soft wheat for pharmaceutical purposes, or for seed, such imports only representing very small quantities. If from the statistics of wheat imports we deduct the soft wheat brought in under the system of temporary admission included in special trade according to the definition adopted in France in 1930, it will be seen that France hardly imports any wheat except from the colonies.

Although the measures of restriction or prohibition of import of foreign wheat have been proved to have some effect in protecting French wheat against the direct competition of the soft wheats, in 1929, before the crisis, the soft wheat introduced from the colonies represented only a small proportion, 10 per cent., of the soft wheat imported into France.

Wine. — Algeria and Tunis, with the recent addition of Morocco, are wine-producing countries. The local market is somewhat limited, from the fact that the Mahommedan religion forbids the use of wine to by far the most numerous section of the population. In Algeria, the one of the three countries which has the largest European population, it is estimated that the local consumption of wine is two million hectolitres per annum (1). The foreign market is also restricted, although the sale of Algerian wine abroad has shown some expansion in 1936-37 (2). Hence it is on the French market that the greater part of the Algerian wine is sold. This wine is for the most part ordinary table wine which more especially competes with the wines of the South of France and much

(1) WORLD AGRICULTURAL SITUATION IN 1934-35. Rome, 1936. French Colonies, p. 252.

(2) Statistics of the Algerian customs.

less with those that are imported from abroad. Up to 1929, the exports of Algerian wine into France remained in the vicinity of 8 millions of hectolitres. Exports increased subsequently up to 1933, when consumption of wine in France, after having increased up to 1930, made no further increase from that time.

TABLE VII. — *Exports of Table Wine from Algeria into France, in Thousands of Hectolitres.*

1929	8,972	1933	14,973
1930	10,837	1934	11,555
1931	12,172	1935	11,830
1932	13,210	1936	10,623

It will be seen that the maximum of Algerian exports into France was reached in 1933. Exports in 1934 showed a decrease and again in 1936.

TABLE VIII. — *Production of Wine in Algeria, in Thousands of Hectolitres.*

1928	13,666	1933	16,731
1929	12,800	1934	22,402
1930	13,561	1935	18,910
1931	15,854	1936 (1)	11,526
1932	18,314		

Between 1928 and 1935, the lowest yield of grapes was in 1929. The vintage yields then show increases with some rapidity up to 1932; then after a decidedly lower yield in 1933, the maximum was reached in 1934, with a vintage of especial abundance resulting from weather conditions particularly favourable to the vine, taken together with an extension of vineyards in bearing, the consequence of the coming into bearing of vines planted before the inauguration in 1931 of the policy of restriction of plantations.

Since 1931, measures have been taken with the object of withdrawing from the market some part of the vintage whether French or Algerian in the event of surplus production over the whole of the vinegrowing areas of France and Algeria. When the 1931 vintage was followed by the still larger vintage of 1932 and when, after a temporary check, the flow of imports from Algeria was resumed, there was a further tightening in the summer of 1933 of the measures of restriction, and in particular compulsory distillation was enforced (2); after the 1934 vintage these measures were again applied at the end of 1934 and of 1935, and it was for this reason that with a maximum Algerian production there was not

(1) Statistics taken from the *Bulletin international du Vin*.

(2) THE WORLD AGRICULTURAL SITUATION IN 1932-33. Rome, 1934. Chapter IV. Government Measures of Farm Relief: France.

a corresponding maximum import of Algerian wine into France, since a part of the 1934 vintage had been withdrawn from the market. The same is true in respect of the already less abundant vintage of 1935. Moreover the effect of the measures for restricting vine plantation, more rigidly enforced, began to be felt; the extension of Algerian vine planting had to cease. Owing to weather conditions, the 1936 vintage was very scanty thus making possible the recovery of the wine market.

(b) *Products Having the Character of Substitutes.*

Cane Sugar and Rum from the French West Indies. — The trends of the total imports of sugar into France and of the imports of colonial origin have often shown marked divergence in recent years, as will be seen from a comparison of the two following tables:

TABLE IX. — *Index-numbers of Total Imports in Weight of Sugar into France.*
(1929 = 100).

1929	100	1933	78
1930	80	1934	83
1931	66	1935	72
1932	80	1936	63

TABLE X. — *Index-numbers of Imports in Weight of Sugar from the Colonies.*
(1929 = 100).

1929	100	1933	269
1930	195	1934	300
1931	108	1935	282
1932	245	1936	307

In 1930 and 1931 the total imports of sugar into France fell by 34 per cent. while in the same period the sugar imports from the colonies doubled. In 1932 and in 1934 the trend, both of the total imports and of the colonial imports, was in the upward direction, and in 1934 the colonial imports were trebled as compared with 1929. After falling in 1935 by 6 per cent. as compared with 1934, they rose in 1936, while the total imports decreased still further. The rum imported into France comes exclusively from the French Possessions, and mainly from Martinique.

Oil-yielding Products. — Owing to the competition of exotic oils, the olive and the rape plant have almost disappeared from French territory. At the present time the olive oil of Algeria and Tunis is seriously threatened by the ground nut oils which are applied to culinary uses, to the manufacture of edible fats, or to soapmaking, and are beginning to compete seriously with the butter and fats of France itself. France does not import the oils, but the ground nuts are imported raw, either in the pod (mainly from West Africa), or hulled (mainly

from foreign countries) and the oils are then extracted in French factories. Since 1934 there has been a large increase in the quantity of hulled ground nuts coming from Africa. By the law of 6 August 1933 the imports of foreign oil-yielding products were made subject to duty; by the Decree of 22 January 1934 quotas were fixed and import permits made necessary.

The oilmill residues are used for stock feed, and compete with the secondary cereals of France, as do also the rice and maize from Indo-China, which are mainly intended for stock feed.

Rice. — In 1929, that is, at the beginning of the period when the share of the colonies in imports into France so markedly increased, rice from Indo-China represented more than 80 per cent. of the rice imports of all categories and from all sources. Since that date the imports in absolute figures have greatly increased.

TABLE XI. — *Rice Imports from Indo-China into France, in Thousands of Tons.*

1929	223	1933	524
1930	197	1934	602
1931	251	1935	396
1932	326	1936	813

After having increased between 1930 and 1934, rice imports from Indo-China into France showed a marked decrease in 1935, and more than doubled in 1936 by comparison with 1935, thus exceeding the 1934 level. This increase contributed largely to the increase in volume of the imports of food stuffs into France in the first months of 1936 (1).

The proportional share of Indo-China in rice imports did not vary greatly from 1929 to 1933, but since then it increased and in 1936 attained nearly 95 per cent.

B. — *Means adopted for Protection of French Agriculture against Colonial Competition.*

The degree of protection of the home market against the various products of colonial origin depends at present to a great extent on the customs system of the colony from which they come. The share of these products in the imports of France depends much less on this degree of protection in itself than on the difference between this degree and the degree of protection against foreign countries. The customs system of the French colonies at present in force is the outcome, speaking generally, of the basic law of 13 April 1928. The system began working a year before the period of acute crisis in the course of which the protectionist policy of France in respect of foreign countries, and the protectionist policy of all countries, was very considerably strengthened. It is a very complex system.

(1) RAPPORT DE LA COMMISSION DES VALEURS EN DOUANE POUR 1936, in *Statistique mensuelle du commerce extérieur de la France*, December 1936.

If a scale is made showing the different colonies in this respect, Algeria is at one extremity and at the other Morocco and the territories under mandate. The other colonies occupy intermediate positions.

From the standpoint of customs, Algeria is completely assimilated to the home country and it is the only country in this position. Algeria is less a colony than a prolongation of French territory on the other side of the Mediterranean. The text of the Law of 13 April 1928 throughout associates France and Algeria, and the expression "France and Algeria" is constantly opposed to the term "colonies." Although it is the question of wines which has mainly been the cause of conflict, even the measures of organisation of the wine market and of restriction of vine planting referred to above do not discriminate between these two divisions of French territory.

Morocco, on the contrary, in its economic relations with the mother country, is in principle a foreign country; its customs system is the outcome of the Act of Algeciras, and deals with all countries, France included, on a basis of equality. However although France does not benefit, nor can benefit—by reason of international agreements—in Morocco by any preferential treatment, she has granted preferential treatment to Morocco. Quotas of certain Moroccan products, and especially of cereals, are admitted free of duty into France.

Tunis, whence comes some proportion of the wheat and of the wine and the greater part of the olive oil imported from the colonies into France, is, since the law of 30 March 1928 and the decrees passed in application of this law, linked by a customs union with France and Algeria but not with the other colonies. Wines and alcohol are excluded from this customs union. A quota of Tunisian wines, fixed since the decree of 2 August 1935, at 750,000 hectolitres, is admitted free of duty and above this limit 500,000 hl. pay a reduced charge only.

The remaining colonies are divided into assimilated and non-assimilated colonies. Among the former there are in particular the French West Indies and Indo-China.

In spite of this assimilation, however, the two main products of the islands are subjected to quota: sugar and rum. Between 1929 and 1934, before the measure relating to colonial sugars came into effect, the sugar imports had trebled. At that time, an agreement between French growers and colonial growers was made for three years, promulgated by Decree of 30 October 1935 and dividing between the respective growers the French and the Algerian markets. From that time the imports of colonial sugars have been practically stabilised. Recently, by a Decree-Law of 27 August 1937, any opening of new sugar refineries in the colonies was made subject to permit from the Minister of the Colonies. The Government is further empowered to divide by decree the quotas between sugar manufacturers of the West Indies and of Reunion and to order the reduction of the sugar plantations in these countries. The agreements between growers expired on 30 September 1937. On that date a decree fixed provisionally the quota of colonial sugar to be imported into France and into Algeria for the season of 1 October 1937 to 30 September 1938.

Although not protecting herself directly against rice from Indo-China, France endeavours to encourage the export to foreign countries. Premiums are given for

the export of Indo-Chinese rice to countries other than France. After the increase of rice imports from Indo-China occurring in the period 1930 to 1934, the Nan-king agreement was signed between France and China on 4 May 1935 with the object of restoring to Indo-China one of its important traditional markets in the Far East. This agreement was at first carried out in especially favourable circumstances, as a sharp rise in silver metal made it possible for China to purchase in 1935 a large quantity of Indo-Chinese rice. It is for this reason that the imports into France of Indo-Chinese rice, as already noted, showed so marked a diminution in 1935, but at the beginning of 1936, Shanghai and the other Chinese ports were closed; the exports of Indo-Chinese rice then flowed back into France which absorbed more than half and the conflict between French and Indo-Chinese growers was reopened.

Among the "non-assimilated" colonies, the most important are French West Africa and Equatorial Africa. The system of their customs relations with the mother country is a preferential regime. Their exports into France of raw materials and foodstuffs benefit by full exemption from duties. For some products, however, this exemption is applied only within the quota limits.

A decree-law of 25 August 1937 prescribes agreements between French and colonial producers, similar to those concluded for sugar, the object being to divide the French and colonial markets between the producers. The decree further empowers the Government to ratify these agreements and to apply penalties in case of non-observance or infringement. Another decree-law of the same date prescribes understandings between producers of the different colonies for the distribution of their exports on the French and Algerian markets, and in default of agreement, empowers the Government to proceed officially to such distribution.

2. — PRODUCTS OF SUPPLEMENTARY CHARACTER.

In a world where foreign markets tend to contract, it is to be logically assumed that colonial agriculture will be directed towards crops which replace, not in the way of competition but as supplementing, the products of French agriculture.

The French Government is endeavouring to encourage this adaptation of colonial agriculture.

Actually, among foodstuffs, products really supplementary to French agriculture are somewhat rare. There is a closed circle of the commodities which the French consider as of primary necessity and which their own land does actually produce; outside this we find a vaguely defined zone of the innumerable semi-luxury foods including especially fruits, and there the strands of interdependence are inextricably woven. It may be suspected that the possibilities of substituting these latter commodities, one for another, in consumption are indefinite, and it can never be said with any certainty that they supplement each other and do not compete. As regards raw materials of agricultural origin and particularly textiles, there are without doubt, between these commodities also, many possibilities of substitution; at the same time France is very poor in all such commodities. It cannot however be claimed that, as "replacement" crops, industrial

crops exclusively are adopted in colonial agriculture. There can be no question of prohibiting colonial production of foodstuffs; such action would be even more oppressive than the old colonial system. Also among the products supplementing those of French agriculture which it is desirable to encourage in the colonies, a certain number of foodstuffs and of raw materials may be noted at one and the same time. It is advisable to include in a separate class the fruits and early vegetables of Morocco which are admittedly and officially regarded as, either competing or supplementing, according to the season, and to which France accords treatment varying with the seasons.

A. — *Foodstuffs.*

In the first place a group of definitely exotic products is to be noted, known as colonial products; next, certain fruits which cannot be grown in France at all, or can be grown only in quantities quite insignificant relatively to the increasing consumption. To this list may be added certain kinds of cereals.

Among products definitely exotic, spices may be ignored as of secondary importance in present day trade, although formerly of so great an importance in colonial enterprise. Those which claim attention here are coffee, tea and cacao.

(a) *Products known as Colonial.*

Coffee. — France is the second largest importer of coffee in the world (1), the greater proportion being imported from Brazil. Imports from the colonies have greatly increased in recent years. However, in 1936, the colonial coffees represented only 17 per cent. of the French consumption, and that consumption, although very high, could not then have attained its saturation point. Actually for some time past many coffee trees have been planted in the French colonies and a large number of these are not yet in bearing. The law of 31 March 1931 imposed a duty on coffee imported into France, a duty the proceeds of which are divided among the colonies in proportion to their exports of coffee. As colonial coffees are for the most part of ordinary quality, there is a certain anticipation that the national market will not be able in the future to absorb these expanding exports.

Accordingly plans for encouraging the cultivation of superior quality coffee in the colonies are being discussed (2).

Tea. — The efforts for the improvement of Indo-China tea and for raising its reputation seem to have been attended by success, and imports of Indo-China tea into France showed an increase in 1936. The market of North Africa is much more important than that of France itself, but the native populations are accustomed to green teas which are not produced on a large scale in Indo-China.

(1) For the statistics of the international trade in coffee, see the INTERNATIONAL YEARBOOK OF AGRICULTURAL STATISTICS.

(2) RAPPORT DE LA COMMISSION DES VALEURS EN DOUANE POUR 1936, in *Statistique mensuelle du commerce extérieur de la France*, December 1936.

Cacao. — In 1936, more than four fifths of the cacao imported into France came from the colonies and especially from West Africa.

(b) *Fruit.*

Bananas. — In the French colonies, the banana is of recent cultivation. In 1931, the imports of colonial bananas represented only 6 per cent. of French consumption.

In 1932, a law of 7 January introduced premiums for banana growing similar to those by which the coffee growers benefit. From that year, the imports of colonial bananas considerably developed. In the second half of 1936, in consequence of the wars in Spain and of the almost complete disappearance of Canary bananas from the French market, the proportion of bananas of colonial origin in French consumption was further increased, and in the first eight months of 1937 the imports of colonial bananas nearly equalled the consumption. Finally for the fourth quarter of 1937, the importation of bananas of foreign origin has been prohibited.

Citrus Fruits. — Citrus fruits are produced in the French colonies under conditions less favourable than bananas. The consumption of oranges and of tangerines is however much on the increase in France, and Algeria produces somewhat large quantities. There is probably less risk of competition between these Algerian fruits and the summer fruits of the mother country than there is from the Californian oranges produced at all times of the year, and still more from the citrus fruits of the Southern hemisphere. It has been suggested that Algeria could in part replace the vine by the orange. Algerian oranges, however, to reach the French market, have to undergo many handlings and this involves costly forms of packing. In addition transport costs are high, owing perhaps to the monopoly governing the steamship lines between Algeria and France. Thus Algerian oranges become much dearer than Spanish oranges for the French consumer; from 1929 to 1935 France imported almost all oranges from Spain, and on this account production of oranges in Algeria was not encouraged. In 1934 the area of orange groves had diminished and the areas planted in tangerines, up to that time more remunerative, had ceased to extend (1). The following year the French Government modified the customs tariff on oranges and tangerines and limited the importation. The French-Spanish agreement which had expired in July was renewed at the end of December; by it 95 per cent. of the oranges of foreign origin imported into France were to come from Spain.

(c) *Cereals.*

Little has been done, so far, specially to encourage in the colonies those varieties of cereals which may be considered as supplementary to the national varieties.

(1) Report by M. SERDA for the Finance Committee of the Chamber of Deputies on the Budget of Algeria for 1937.

Hard Wheat. — Hard wheat, utilised in the making of alimentary pastes, is not, properly speaking, grown in France. Both hard and soft wheats are grown in Africa, but the hard wheat is mainly cultivated by native growers, while the settlers grow especially the varieties also grown in the mother country. The protection granted to all the varieties does not encourage one variety more than another. The greater part of the hard wheat grown in Africa is transformed into semolina consumed on the spot; the surplus is exported to France. As the yield is very irregular, the production and exportable surplus are also irregular. Exports seem to vary with weather conditions rather than with the economic conditions prevailing in France. For example, whereas the quota of hard wheat from Morocco to be allowed free entry was fixed in 1932 for a period of 5 years at 150,000 quintals, France imported from Morocco during the last farming season of that period, from 1 June 1936 to 31 May 1937, only 700 quintals of hard wheat. By the Decree of 19 June 1937 the quota of hard wheat to be admitted free of duty into France and into Algeria was raised to 200,000 quintals, while the quota of soft wheat was maintained at 1,650,000 quintals.

Brewing Barley. — In the French brewing industry home grown barleys are held in small esteem, and for a long time African barley was also considered unsuitable for brewing; hence in years of surplus production it was a glut on the French markets of secondary cereals. At the present time, however, French brewing is beginning to absorb African barleys. The Decree already quoted of 19 June 1937 grants to Morocco a quota of 200,000 quintals of brewing barley to be admitted into France and Algeria free of duty.

B. — *Raw Materials.*

Rubber. — Rubber takes the third place in exports from Indo-China after rice and maize. In these last years, rubber growing has much developed, thanks to bounties on production similar in type to those mentioned in connection with coffee. The rubber export from Indo-China is, however, mainly directed towards foreign countries. In 1936 France imported only slightly more than 11,000 tons of Indo-China rubber out of a total volume of rubber imports of nearly 64,000 tons, a quantity noticeably below French consumption in times of industrial prosperity, which then amounted to between 71,000 and 72,000 tons.

Timber. — France obtains from its colonies construction timber and cabinet making woods. Since 1933 the total volume of its imports of okoumé has come from its possessions, as also the greater proportion of the mahogany. In 1936 two thirds of the French imports of teak came from the colonies (1). France cannot however obtain thence the soft woods necessary for her industries.

Textile Fibres. — Attempts have been made to develop cotton growing in West and Equatorial Africa, but the imports coming from the colonies represent only an insignificant part of the French consumption of cotton. No great success has attended the endeavours to develop production of jute, or of its substitute, sisal.

(1) *Statistique mensuelle du commerce extérieur de la France*, December 1936.

3. — PRODUCTS PARTLY COMPETING WITH AND PARTLY SUPPLEMENTING THE PRODUCTS OF FRENCH AGRICULTURE.

These products consist of the early vegetables and fruits of the Mediterranean colonies.

In certain seasons of the year, France admits from Morocco free of duty fruits and early vegetables in fairly large quantities. Thus there is a more or less definite acquiescence in the abandonment of the cultivation of the earliest fruits and vegetables of the South of France and of the forced fruits, previously much sought after by the wealthier classes in spite of, or perhaps because of, their high prices. The French growers however are wholly unprotected against Algerian competition and that was already fatal to their chances. On the other hand, the consumption of fruit tends to increase among the working class (1). If prices are not too high, this class may become customers for the African production in the seasons when the prices of home-grown fruits are prohibitive for the working class, and will become customers for the production of the mother country at the time of the seasonal price fall. The contribution of the colonies may thus increase without injuring French growers taken as a whole. There is no falling off in the demand for national fruits; there is merely a change in the distribution of this demand between the various groups of consumers and, as a result, of producers.

Potatoes. — The Mediterranean colonies of France grow potatoes in the winter, and it is from these colonies that they are imported in the spring; in summer less are imported from the colonies and more from foreign countries, especially the Netherlands.

Tomatoes. — Colonial tomatoes form the greater proportion of imported tomatoes. In 1936 imports of colonial tomatoes showed a large increase on those of the previous year (2). These tomatoes are much earlier than those grown in France. For Moroccan tomatoes, an adjustment scheme has been established by agreement between French, Algerian and Moroccan growers. Moroccan tomatoes can be exported to France and to Algeria only in limited quantities. These exports must cease at the time when the exports of Algerian tomatoes to France, usually a little later, reach a certain figure; and the latest date up to which the Moroccan exports to France are permitted is 12 June (3).

(1) DEPOID, Pierre: Les consommations, in the annual review for 1936 published in the *Revue d'économie politique* of May-June 1937.

(2) *Statistique mensuelle du commerce extérieur de la France*, December 1936.

(3) The competition of Moroccan tomatoes caused anxiety to the Chambers of Agriculture in France. A correspondence on this subject was exchanged between the Ministry of Agriculture and the President of the Permanent Assembly of the Chambers of Agriculture. It was published in the *TRAVAUX DES CHAMBRES D'AGRICULTURE*.

Table Grapes. — Muscat grapes from Morocco, to benefit by the exemption from duty, must be despatched to France and Algeria before 15 September, the quantity admitted under these conditions being 500 quintals (1).

It will be seen that the policy of France in respect of colonial products is becoming increasingly complicated. Thus, and for this development even in respect of regulations the complexity of which also increases, the example of the second greatest of the colonial empires of our day is proof of the difficulty of securing the internal organisation of the vast economic systems which are coming into being; it cannot be done without preparation and planning. Although the colonies have gradually become an essential element in the economic structure of the colonial powers, and although at the present time when, from a number of different circumstances, external markets are being closed, the colonies are an almost indispensable outlet for industries, trade, and financial activity organised for a long time past with a view to export, it has none the less to be recognised that when the mother-country is not exclusively industrial but remains agricultural, the adaptation of the agriculture of the colonies to that of the mother country cannot be effected without some serious clashes of interest.

M. APCHIÉ.

THE ECONOMIC AND SOCIAL INCOME OF AGRICULTURE AND THE VARIATIONS THEREIN FROM 1932-33 TO 1933-34

SUMMARY: Importance of the social income. — Table of the variations from 1932-33 to 1933-34 in the social income, in the gross return and in the farming expenses of farms mainly engaged in live stock production over a part of Europe. — The social income in 1933-34 in Scotland, Netherlands (Overijssel), Switzerland, Germany, Austria, Denmark, Norway, Sweden and in Finland on the groups of farms mainly engaged in live stock production. — Variations, from 1932-33 to 1933-34 in the social income on these farms. Causes of these variations.

It was proposed to publish in the *Monthly Bulletin of Agricultural Economics and Sociology* (2) a series of articles on the social income in 1932-33 and in 1933-1934 in the European countries which supply accountancy results to the Institute. A study has been made of the year 1932-33, and we may now pass on to the year 1933-34.

In this first article, the variations in the social income from 1932-33 to 1933-34 will be studied on the farms mainly engaged in live stock production in Scotland, Netherlands (Overijssel), Switzerland, Germany, Austria, Denmark, Norway, Sweden and Finland.

Since it was in 1928-29 that the social income reached the highest level, the social income obtained by each group of farms in that year is taken as base figure:

(1) Decree of 19 June 1937. *Journal Officiel*, 22 June 1937.

(2) See the *Monthly Bulletin of Agricultural Economics and Sociology*, May, June and July 1937, Nos. 5, 6 and 7.

TABLE I. — *Social Income, Gross Return and Farming Expenses, in 1932-33 and 1933-34*
(The social

DESIGNATION		Number of farms	Average area ha.	Live stock production				Crop produc- tion
				Cattle		Pigs	Other animals	
				Breeding stock; slaughter stock, etc.	Milk and milk products			
				1	2	3	4	5
DAIRY FARMS.								
Scotland:								
North-east and South- west	1932-33	73	104 —	10.09	127.23	25.96	8.71	21.09
	1933-34	77	77.98	18.96	161.36	24.33	17.17	25.76
Netherlands:								
Overijssel: grazing dis- tricts	1932-33	190	18.94	0.43	45.94	11.07	2.37	2.54
	1933-34	205	18.39	22.75	47 —	11.74	2.68	4.12
Overijssel: IJsselstreek	1932-33	45	17.22	8.63	33.01	26.07	8.32	9.39
	1933-34	43	16.09	26.02	36.94	25.79	7.88	18.78
Overijssel: sandy dis- tricts	1932-33	252	14 —	4.18	46.69	27.62	11.65	3.35
	1933-34	264	14.09	17.80	45.34	29.43	10.59	7.08
Switzerland:								
Dairy farms.	1932-33	214	13.67	16.92	67.04	7.77	4.14	25.31
	1933-34	199	13.72	19.05	64.03	8.40	3.76	20.05
Exclusively grass . .	1932-33	132	10.97	23.68	60.34	13.59	4.24	28.30
	1933-34	132	10.99	26.55	55.47	16.33	4.61	17.70
Growing forage mix- tures	1932-33	166	18.93	19.58	49.37	14.49	6.08	34.07
	1933-34	158	18.93	22 —	48.96	16.90	8.45	30.85
Germany:								
Bavaria (2): 5 to 20 ha.	1932-33	37	14 —	25.63	64.29	8.40	2.52	9.66
	1933-34	34	14 —	24.37	82.36	9.24	5.04	4.20
West and South: 5 to 20 ha.	1932-33	414	13 —	15.05	18.18	14.42	5.33	22.57
	1933-34	372	13 —	15.99	21.32	17.24	5.33	20.06
West and South: 20 to 100 ha.	1932-33	780	43 —	14.23	22.92	17 —	4.74	35.18
	1933-34	650	43 —	14.63	27.67	17.39	5.53	34.78
West and South: over 100 ha.	1932-33	82	194 —	9.76	29.30	13.28	3.12	55.08
	1933-34	102	220 —	9.77	37.11	12.11	3.12	56.25
East: 5 to 50 ha. .	1932-33	259	30 —	11.16	23.26	17.07	2.33	25.58
	1933-34	208	31 —	11.63	24.65	20 —	3.26	25.58
East: 50 to 200 ha. .	1932-33	283	99 —	13.45	26.90	11.69	2.34	43.86
	1933-34	243	98 —	13.45	32.16	15.20	2.92	45.93
East: over 200 ha. .	1932-33	183	432 —	9.88	18.60	10.47	4.07	60.47
	1933-34	135	424 —	11.63	22.09	12.21	5.81	59.88

(1) The social income of 1929-30 is equal to 100. — (2) The social income of 1930-31 is equal

the Farms to a Number of European Countries Engaged mainly in Live Stock Production.

1928-29 = 100.

total gross turn	Farming expenses		Social income								Social income 1928-29 in na- tional money
	Seeds, fertiliser, forage	Other expenses	Social income (total)	Income passing to third parties				Operator's income			
				Taxes	Interest de debts	Wages of employ- ees	Total	Work of the family	Return on own capital	Total	
7	8	9	10	11	12	13	14	15	16	17	18
99.17	61.78	34.78	102.61	1.04	—	48.72	49.76	6.74	46.11	52.85	1)(8.385)
169.29	72.63	49.14	147.52	1.19	—	55.46	56.65	5.01	85.86	90.87	—
62.35	22.90	8.36	31.09	3.54	4.46	15.88	23.88	31.36	24.15	7.21	(238.15)
88.29	25.61	9.92	52.76	3.51	3.80	15.23	22.54	26.76	3.46	30.22	—
85.42	30.06	11.13	44.23	3.47	5.24	23.01	31.72	26.91	14.40	12.51	(225.35)
115.41	35.25	12.87	67.29	2.92	5.35	21.66	29.93	22.72	14.64	37.36	—
93.49	46.34	11.46	35.69	1.32	3.74	19.01	24.07	43	31.38	11.62	1(253.99)
110.24	49.60	11.34	49.30	1.39	3.08	18.49	22.96	36.63	10.29	26.34	—
134.59	19.55	50.75	64.29	3.26	51.38	54.64	—	—	—	9.65	(798)
132.96	16.42	44.61	71.93	3.13	46.49	49.62	—	—	—	22.31	—
145.73	25.80	52.86	67.07	3.12	52.48	55.60	—	—	—	11.47	(802.18)
143.98	21.69	46.37	75.92	3.24	52.86	56.10	—	—	—	19.82	—
138.17	24.15	48.42	65.60	3.49	52.32	55.81	—	—	—	9.79	(745.47)
146.75	22.14	43.19	81.42	3.22	51.51	54.73	—	—	—	26.69	—
152.10	19.33	54.62	78.15	5.46	17.65	29.83	52.94	65.97	40.76	25.21	2)(238)
176.05	24.37	58.40	93.28	5.04	17.23	24.37	46.64	69.75	23.11	46.64	—
119.75	15.67	34.49	69.59	5.64	10.66	14.11	30.41	58.62	19.44	39.18	(319)
127.90	14.42	36.68	76.80	4.07	9.72	15.05	28.84	55.17	7.21	47.96	—
126.48	22.92	35.97	67.59	7.12	12.25	35.57	54.94	25.30	12.65	12.65	(253)
136.36	23.32	37.55	75.49	5.93	11.86	36.76	54.55	24.89	3.95	20.94	—
133.98	27.34	37.50	69.14	7.42	14.84	49.61	71.87	7.42	10.15	2.73	(256)
144.14	28.91	36.72	78.51	6.64	13.67	51.17	71.48	5.86	1.17	7.03	—
127.44	14.88	33.03	79.53	6.05	17.67	30.70	54.42	39.53	14.42	25.11	(215)
133.02	16.74	34.42	81.86	4.65	17.21	33.49	55.35	39.07	12.56	26.51	—
134.50	20.47	37.42	76.61	6.43	21.06	52.63	80.12	14.62	18.13	3.51	(171)
149.12	23.39	38.01	87.72	5.26	20.47	57.31	83.04	14.62	9.94	4.68	—
138.37	25	38.37	75	6.40	24.42	63.95	94.77	4.65	24.42	19.77	(172)
148.84	23.84	40.12	84.88	4.65	21.51	64.53	90.69	5.23	11.04	5.81	—

Net return.

DESIGNATION	Number of farms	Average area ha.	Live stock production				Crop produc- tion	Miscel- lanous branches	
			Cattle		Pigs	Other animals			
			Breeding stock; slaughter stock, etc.	Milk and milk products					
			1	2	3	4	5	6	
Austria:									
Dairy farms without alpine pasture . . .	1932-33	29	29.43	23.60	60.44	22.18	5.66	18.25	23.4
	1933-34	45	26.06	27.34	68.83	28.38	8.09	14.76	20.0
Dairy farms with alp- ine pasture	1932-33	105	38.73	17.51	30.24	16.48	6.12	12.42	18.0
	1933-34	91	44.94	21.23	25.54	14.93	5.61	9.29	17.3
Denmark:									
under 10 ha.	1932-33	133	6.30	4.12	43.26	52.30	16.48	5.39	7.7
	1933-34	136	6.50	4.75	41.84	47.38	16.80	3.80	10.0
from 10 to 20 ha. . .	1932-33	83	15.40	6.25	46.30	53.47	10.19	9.49	6.0
	1933-34	114	15.40	7.17	46.06	49.77	11.34	6.71	11.1
from 20 to 30 ha. . .	1932-33	112	24.60	5.87	40.84	59.39	8.21	10.80	5.0
	1933-34	147	24.70	6.58	41.54	47.18	7.98	8.45	8.4
from 30 to 50 ha. . .	1932-33	161	39.20	5.74	42.30	53.79	7.57	8.88	4.9
	1933-34	207	38.40	7.05	41.25	44.65	8.09	8.09	8.3
from 50 to 100 ha. . .	1932-33	76	65.20	4.62	39.60	47.98	6.65	17.63	5.2
	1933-34	99	65	6.07	38.73	42.77	6.65	15.32	10.4
over 100 ha.	1932-33	48	198.90	3.43	42.68	30.84	1.56	35.20	4.3
	1933-34	51	188.90	5.30	41.74	28.35	2.49	28.04	9.9
DAIRY FARMS WITH PIG FATTENING.									
Norway:									
Oestlandet	1932-33	99	23.60	12.46	62.09	17.82	11.57	31.89	15.0
	1933-34	87	25.47	10.71	56.73	19.34	15.71	29.61	18.3
Trondelag	1932-33	32	16.39	14.22	48.29	12.93	14.03	32.57	18.3
	1933-34	30	16.57	14.62	43.64	12.89	14.79	17.52	18.4
Sörlandet	1932-33	28	5.80	10.57	53.97	15.86	23.19	26.22	19.3
	1933-34	27	5.83	9.72	54.20	20.63	23.10	22.36	25.1
Vestlandet	1932-33	13	7.51	15.01	51.67	18.15	37.97	33.22	22.3
	1933-34	31	6.79	15.55	51.97	20.95	31.55	27.07	24.3
Sweden:									
Upper Norrland . . .	1932-33	94	9.02	6.52	68.12	9.73	15.59	12.17	20.0
	1933-34	80	9.29	7.84	60.58	12.76	14.69	9.48	22.2
Lower Norrland . . .	1932-33	56	10.43	5.49	54.89	12.70	15.34	13.39	14.4
	1933-34	45	10.62	7.26	52.79	10.41	16.91	8.46	18.0
Finland:									
under 10 ha.	1932-33	155	8.76	4.25	41.77	9.06	21.59	27.22	10.0
	1933-34	169	8.71	5.67	42.82	10.70	19.94	22.83	14.9
from 10 to 25 ha. . .	1932-33	364	19.58	4.60	44.62	9.92	12.61	28.20	19.0
	1933-34	365	19.66	6.05	46.19	11.49	13.34	24.72	12.0
from 25 to 50 ha. . .	1932-33	170	38.89	4.45	51.19	11.24	11.24	36.77	9.0
	1933-34	174	38.57	5.85	55.05	13.23	13.04	34.24	14.4
over 50 ha.	1932-33	94	86.59	4.54	61.09	12.80	13.76	42.26	10.0
	1933-34	94	88.07	5.36	68.15	13.84	12.50	36.98	15.0

(1) Net return. — (2) Taxable net return.

Total gross return	Farming expenses		Social income								Social income 1928-29 in national money
			Social income (total)	Income passing to third parties				Operator's income			
	Seeds, fertiliser, forage	Other expenses		Taxes	Interest de debts	Wages of employ-ees	Total	Work of the family	Return on own capital	Total	
7	8	9	10	11	12	13	14	15	16	17	18
153.57	18.15	38.26	97.16	8.61	7.78	31.56	47.95	47.62	1.59	49.21	(237.24)
176.43	22.15	47.48	106.80	7.78	10.90	32.23	50.91	49.40	6.49	55.89	—
101.67	9.27	26.97	65.43	4.54	5.96	26.40	36.90	38.83	10.30	28.53	(221.31)
93.93	8.22	26.41	59.30	4.78	6.35	25.61	36.74	29.28	6.72	22.56	—
129.31	48.97	16.32	64.02	3.17	—	8.87	12.04	43.58	8.40	51.98	(631)
125.51	41.52	16.16	67.83	3.17	—	9.35	12.52	41.52	13.79	55.31	—
132.64	42.82	19.91	69.91	4.17	—	20.60	24.77	29.40	15.74	45.14	(432)
132.17	40.51	20.14	71.52	4.40	—	21.06	25.46	30.09	15.97	46.06	—
130.75	45.31	18.07	67.37	4.46	—	23.94	28.40	22.07	16.90	38.97	(426)
120.18	35.20	18.78	66.20	4.40	—	23.47	27.93	21.84	16.43	38.27	—
123.24	40.73	17.76	64.75	4.44	—	26.37	30.81	18.01	15.93	33.94	(383)
117.23	33.68	18.28	65.27	4.44	—	25.33	29.77	18.01	17.40	35.50	—
121.68	36.13	19.37	66.18	5.20	—	30.06	35.26	14.74	16.18	30.92	(346)
119.94	31.21	20.23	68.50	4.91	—	29.48	34.39	14.45	19.66	34.11	—
118.07	31.78	21.50	64.79	5.92	—	39.56	45.48	7.16	12.15	19.31	(321)
114.95	28.97	20.56	65.42	5.61	—	36.14	41.75	7.16	16.51	23.67	—
150.98	32.78	39.44	78.76	1.11	—	37.66	38.77	22.87 1)	17.12	39.99	(360.30)
150.62	33.03	40.83	76.70	1.05	—	37.61	38.66	20.79	17.31	38.10	—
140.62	20.57	39.75	80.30	1.16	—	28.02	29.18	35.10 1)	16.02	51.12	(300.89)
121.94	21.44	38.19	62.31	1.09	—	25.06	26.15	35.66	0.50	36.16	—
148.99	32.70	43.91	72.38	1.18	—	36.00	38.08	36.37 1)	2.07	34.30	(473.90)
155.46	33.46	40.91	81.09	1.20	—	33.71	34.91	34.54	11.64	46.18	—
178.38	31.58	43.65	103.15	1.24	—	34.29	35.53	71.86 1)	4.24	67.62	(299.20)
171.66	26.27	43.58	101.81	2.14	—	27.57	29.71	72.26	0.16	72.10	—
132.36	20.51	31.77	80.08	—	—	6.96	6.96	79.66	6.54 2)	73.12	(217)
127.88	23.84	29.70	74.34	—	—	5.19	5.19	75.55	6.40	69.15	—
115.84	17.10	28.62	70.12	—	—	17.63	17.63	51.69	0.80 2)	52.49	(205.62)
113.89	19.66	27.99	66.24	—	—	14.83	14.83	54.32	2.91	51.41	—
114.78	19.99	21.50	73.29	0.73	6.96	11.48	19.17	43.73	10.39	54.12	(2,186)
116.83	21.09	20.68	75.06	0.78	6.22	10.84	17.84	43.69	13.53	57.22	—
109.25	14.97	21.02	73.26	1.12	7.46	18.83	27.41	33.24	12.61	45.85	(1,784)
114.74	18.50	20.29	75.95	1.12	6.61	18.50	26.23	32.85	16.87	49.72	—
124.20	17.69	23.40	83.11	1.73	9.64	31.65	43.02	21.41	18.68	40.09	(1,504)
135.90	24.67	24.33	86.90	1.86	9.04	30.92	41.82	21.81	23.27	45.08	—
144.05	25.37	29.47	89.21	2.60	13.62	47.92	64.14	9.30	15.77	25.07	(1,344)
152.31	31.62	30.21	90.48	2.75	12.20	45.32	60.27	9.53	20.68	30.21	—

this is reduced to 100 and the index numbers found in Table I are calculated from it. In this way it will be seen *how* and *why* the social income has varied in each country from 1932-33 to 1933-34. The results of each group during two successive years will be compared, and the measure of comparison used will be beyond challenge, as it is based not on the *absolute values* but on relative figures, and further because the results of one country are not being compared with those of another, and all that is done is to compare the results obtained in the two years by the farms of the same country as *between the two results* in each case. The causes will be indicated for the increase or reduction of the social income of each of the groups of farms investigated, and apart from any attempt to make an international comparison which might be open to question, a *general view* will be obtained as to the conditions of live stock farming in a part of Europe.

Scotland.

Dairy Farms of the North-East and the South-West. — In 1932-33 the yields in weight of dairy products had been much lower than those of the previous year; the prices had shown serious decline; the social income had been reduced by 28 per cent. In 1933-34 the dairy farms of the North-East grazed a larger number of animals and those of the South-West made more money from the sale of cattle and sheep:

Gross Yield in Volume per Hectare.

(Quantities Sold and Delivered for Use in Farm Household).

	1932-33	1933-34
Cattle, head	0.40	0.56
Pigs, head	0.36	0.21
Milk and milk products, kg.	847	1257

Prices made a distinct advance, except those ruling on the market for cattle, butter and cheese.

Index-numbers of Prices.

(1911-13 = 100).

	1932-33	1933-34
Fat cattle	103	100
Store cattle	100	88
Fat sheep	103	120
Store sheep	84	110
Bacon pigs	96	112
Milk	147	161
Cheese	114	107
Butter	94	91
Wages	166	163
Fertilisers	89	90
Concentrated feeds	88	84

The gross return, and to a less extent the social income, increased, the former by 70 per cent. and the latter by 40 per cent. (farming expenses were decidedly higher than in 1932-33), this advance being nearly all to the advantage of the operator, whose income was almost twice the income he secured in the previous year.

Netherlands (Overijssel).

In 1932-33 the agricultural situation in the Netherlands showed maintenance of prices, direct State assistance to farmers, reduction of costs and a much larger social income.

From 1932-33 to 1933-34, prices continued to advance as appears from the following figures:

	1932-33	1933-34
Agricultural products:		
(a) crop	42	59
(b) live stock	51	53
Agricultural wages	81	74
Manufactured goods (wholesale trade).	53.5	63

The State has not departed from its policy of encouragement of agriculture. The Law of 5 August 1933 is of capital importance. It empowers the Government to regulate, according to circumstances, production, sale on home market and the export of agricultural products; to grant fresh subsidies; to form a monopoly of the import and export of certain products, thus enabling the Government to canalise trade as the national interest requires.

This law made it obligatory for all persons gaining a livelihood from trade in agricultural products to join the organisations formed by the Government. The holders of monopolies are appointed by the Government, and the prices are fixed by the Minister of Economic Affairs.

A great change took place in the internal organisation of farms. The poor situation of arable farming induced the Netherlands farmers to turn their attention to cattle raising.

The following statement shows the live stock production per hectare in Overijssel in 1932-33 and in 1933-34:

Gross Yield in Volume per Hectare.

(Quantities Sold or Delivered for Use in Farm Household).

	Cattle kg. of live weight		Milk kg.		Pigs kg. of live weight	
	1932-33	1933-34	1932-33	1933-34	1932-33	1933-34
Grazing districts	1.70	94	2,205	2,433	87	78
Ijsselstreek	32 —	102	1,499	1,810	194	162
Sandy districts	17 —	78	2,390	2,503	232	208

As, on the one hand, this excessively rapid increase in the numbers of cattle might have serious consequences in the future, and as, on the other, the supply of pigmeat was too plentiful in view of the slackening of exportation, the Government gave attention to the reduction of pig numbers. The number of piglets that might be kept was fixed: from 1 October 1932 to 1 April 1933 and from 1 April 1933 to 1 January 1934, at 1,800,000; from 1 January 1934 to 1 January 1935, at 2,500,000. With the object of relieving the home market, the C.V.C. (Central Crisis Organisation for Pigs) chilled, from 1 January to 28 April 1934, 7,000,000 kg. of pigmeat, and a nearly equal quantity from 30 April to 1 July 1934. The pig numbers, which in September 1932 had been 2,700,000, fell by November 1933 to 2,480,000, by May 1934 to 2,070,000 and by August 1934 to 1,870,000.

The necessity for reduction of cattle numbers was also evident. Culling took place of 119,447 cows in-calf during the winter of 1933-34. Each province had the right to rear 410,000 calves, including 350,000 heifer calves. The calves were registered and marked.

The subsidies granted to wheat and potato cultivation had very satisfactory effects on the yield in crop production: these crops proved to be more remunerative than the dairying industry.

In 1933-34 the rise in the gross return (Table I) of the Overijssel farms mainly engaged in live stock production was much larger than the rise in prices of manufactured goods: the social income was considerably higher, and incidentally the operator's income.

In all the other provinces of the Netherlands, profitability was much better than in 1932-33. Except in Utrecht, the net return which had been negative became positive:

Net Income in Florins per Hectare (1).

	1932-33	1933-34
Groningen	— 16.41	34.80
Friesland	— 15.86	24.49
Drenthe	— 14.91	30.82
Guelderland	— 84.39	11.89
Utrecht	137.20	— 9.70
North Holland	— 2.91	25.42
South Holland	— 10.73	29.68
Zeeland	— 24.59	39.23
North Brabant	— 41.15	9.67
Limburg	— 3.73	28.65

Switzerland.

Prices of agricultural products, especially slaughter stock prices, declined in 1932-33; there was congestion on the market for fat pigs on account of exceptionally large supplies; the deliveries of milk and live stock production increased;

(1) Income roughly calculated.

exports showed a decrease of 38 per cent.; farming expenses increased; and the social income fell.

In 1933-34, the tendency for agricultural prices to fall was checked; it was possible to raise by a little the prices of some important products, in particular pig prices. The dairy federations succeeded in maintaining the basic price of milk for direct consumption at 18 centimes the kg.

The following table shows the prices paid during the two years under review for certain agricultural products:

	1932-33 fr.	1933-34 fr.	
Wheat	37.18	36.10	per quintal
Table potatoes	10.29	9.25	» »
Heifers and fat steers	150.30	119.30	» 100 kg. live weight
Fat pigs	127	140	» » » » »
Fresh eggs	13.99	13.30	» hundred
Milk (liquid)	21.50	20.15	» 100 kg.
Butter	4.34	4.13	» kg.
Emmental cheese	2.06	4.13	» »
Mixed fruit juice	24.53	26.35	» hectolitre
Summer honey	3.64	3.84	» kg.

Although the value of exported products of stock farming advanced, the value of other animal products exported (for example, eggs) was reduced. The import of commodities competing with Swiss agriculture fell from 401,000,000 francs in 1932 to 344,000,000 in the following year. The import of farming requisites declined in value by 38 per cent. (44,000,000 francs). In particular the volume of the import of feeds was reduced: from 8,000,000 quintals, it fell to 5,200,000.

Crop yields were in general satisfactory. Milk deliveries were higher by 8 per cent. than in 1932. The number of cows has increased.

Yields in Kind in Thousands of Quintals.

	in 1932-33	in 1933-34
Cereals	2,355	2,732
Potatoes	6,549	8,318
Fruits	5,285	3,407
Milk	27,765	28,479
Cheese	497	554
Butter	229	255
Slaughter stock (thousands of head)	1,534	1,563
Pigmeat	1,960	1,912
Eggs (millions)	423	440

For the three groups of farms under review, the gross yield in volume per hectare of live stock production was as follows:

	Cattle kg. of live weight		Milk kg.		Pigs kg. of live weight	
	1932-33	1933-34	1932-33	1933-34	1932-33	1933-34
Dairy farms	90	127	2,488	2,536	49	48
Grass farms	127	178	2,202	2,251	86	94
Farms growing mixed forage crops	97	137	1,811	1,712	85	90

In spite of the marked increase in live stock production, the gross return (Table I) of dairy farms and of the exclusively grass farms did not increase; milk prices were not satisfactory. On the other hand, farms growing mixed forage crops secured a gross return higher than that of 1932-33.

The farming expenses declined considerably, and the social income of the three groups of farms advanced. The operator's income of the exclusively grass farms did not increase to the same extent as did that of the other two groups, the fact being that on the grass farms the investment of capital was carried too far.

The interest return on capital (net return) advanced:

from 0.28 in 1932-33 to 1.61 per cent. in 1933-34 on dairy farms
 " 0.19 " " " 1.20 " " " " on grass farms
 " 0.26 " " " 2.23 " " " " on farms growing mixed forage crops

After having reached its *freezing point* in 1932-33, the actual interest return on agricultural capital was distributed to meet losses. "In 1932-33" to quote Prof. LAUR (1), "the capital of more than 10 milliards of francs invested in agriculture no longer brought in any interest. The interest of some 5 millions of debts continued to be charged on the capital which remained available, after which it was necessary to have recourse to the assistance funds. Since then, the situation has improved from one year to another, and there appears to be a return to normal conditions."

Germany.

¶ In 1932-33, the social income increased in the western and southern provinces of Germany, owing to the increase in the gross return; in the provinces of Eastern Germany it decreased, with some decline in the gross return and some increase in the farming expenses.

(1) La dernière leçon du Dr. LAUR et le retour de l'agriculture suisse à des conditions normales.
 Le Sillon Romand, 30 July 1937.

In 1933-34, the social income was distinctly higher in Germany than in the previous year. The agrarian policy of Germany took on a new aspect. The isolated measures insufficiently co-ordinated were brought to an end, and an organic plan introduced.

The Reich Law on the Corporation of Agriculture (*Reichsnährstand*) of 13 September 1933 and the Reich Law on hereditary farm holdings of 29 September 1933 are of capital importance. The former laid the foundation of a regulation of the market and of a disciplined organisation of agriculture. The second was designed to ensure the preservation of the small farming class and to prevent excessive indebtedness on the part of the farming class (1).

Under the influence of numerous measures of encouragement, economic activity was resumed on a large scale. From the end of January 1933 to the end of the financial year 1933-34, the number of unemployed persons fell by more than 3,500,000, with the consequence of a rise in manufacturing production. On the other hand trade in commodities increased by 16 per cent.

Prices of agricultural products reached the lowest level in April 1933. From that time onwards, they rose slowly. The branch of production which has most profited by the price improvement is stock breeding. Although the "price scissors" could not be completely closed, the relation between agricultural products and those of manufactured goods tends in the direction of advantage of the former.

The prices of agricultural products in RM. per quintal were as follows:

	1932-33	1933-34
Wheat (Berlin)	20.03	18.58
Rye (Berlin)	15.77	15.26
Fodder barley (Berlin)	16.57	16.17
Oats (Berlin)	13.25	14.62
Red potatoes (Berlin)	2.67	3.04
Fresh milk (Berlin)	13.84	14.07
Butter (Hamburg)	212.92	253.54
Steers, live weight (Berlin)	64.42	64.67
Pigs, from 100 to 120 kg. live weight.	77.40	85.03

There was a marked advance in milk production above the level of 1932-33. *Taking the live stock inventory at the end of the year, plus contributions to the market, to the household, to allied undertakings and to the family of the operator, less inventory at the beginning of the year, liabilities, purchases, contributions from the household, from allied enterprises and from the operator's family the increase in cattle was larger in 1933-34 than in 1932-33. The same is true of the*

(1) See THE WORLD AGRICULTURAL SITUATION IN 1933-34, pages 124 et seqq. International Institute of Agriculture, Rome 1935.

Gross Return in Volume per Hectare

(Quantities Sold).

	Cattle kg. of live weight		Milk kg.		Pigs kg. of live weight		Cereals quintals		Potatoes quintals	
	1932-33	1933-34	1932-33	1933-34	1932-33	1933-34	1932-33	1933-34	1932-33	1933-34
Farms drawing profit mainly from yield of animals.										
West and South										
5 to 20 ha. . .	74	79	419	483	59	65	2.80	3.28	3.75	3.39
20 to 100 ha. .	56	57	419	497	55	52	4.27	4.64	3 —	2.96
more than 100 ha.	39	39	542	675	44	36	7.13	7.92	2.62	2.30
East;										
5 to 50 ha. . .	37	39	361	377	49	51	2.68	2.91	1.50	0.99
50 to 200 ha. .	36	36	332	391	26	30	3.66	4.08	1.50	1.32
more than 200 ha.	26	31	231	270	23	25	4.94	5.32	3.75	2.63

increase in pig numbers, except on the farms in the West and South of 20 to 100 hectares and of more than 100 ha.

Owing to the increase in the live stock production and the price improvement, the level of the gross return in RM. has risen (Table I).

Farming expenses perceptibly increased, but not so far as to prevent an advance in the social income.

By means of various measures, a considerable reduction was effected in taxes, interest charges and other social expenditure. The rate of the turnover tax was reduced 50 per cent. The rate of the land tax was lowered from 1 October 1933. At the same date, agricultural employers were exempted from the obligation to contribute to unemployment insurance. However owing to the larger number of farm workers, costs of wage labour were higher than in 1932-1933, so that the proportion of the social income which the farmer had to draw upon to pay his creditors was not reduced. The increase in the social income, however, enabled him to secure for himself a higher (operator's) income than in the previous years.

Austria.

Prices of cereals, of beef and of pigmeat, advanced in 1932-33; but as a consequence of the fall in milk production and in pigmeat, the gross return came out at a lower level than the figure of 1931-32. On the other hand, the farming expenses fell so far that the social income of the dairy farms with alpland was maintained and the social income of the dairy farms without alpland exceeded by 10 per cent. the figure of 1931-32.

In 1933-34, prices declined with the exception of wheat prices:

		Prices in schillings	
		1932-33	1933-34
Wheat	100 kg.	33.57	35 —
Rye	» »	29.25	22.55
Barley	» »	33.62	23.80
Oats	» »	24.11	19 —
Potatoes	» »	13.29	10.95
Beef	per kg.	2.48	2.27
Pigmeat	» »	2.32	2.17
Milk	» »	0.33	0.305
Butter	» »	4.08	3.73

The gross return of the dairy farms without alpland (Table I) showed an increase of 22 per cent. over 1932-33, owing to the large increase in the production on these farms; on the other hand, the gross return of the dairy farms with alpland showed a fall of 8 per cent., as the milk production and increase of pig numbers was less high than in 1932-33.

Gross Return in Volume per Hectare.

(Quantities Sold and Delivered to the Farm Household).

	Cattle kg. of dead weight		Milk kg.		Pigs kg. of dead weight		Cereals quintals	
	1932-33	1933-34	1932-33	1933-34	1932-33	1933-34	1932-33	1933-34
Dairy farms without alpland	23	29	434	535	23	31	0.47	0.47
Dairy farms with alpland	16	21	203	183	16	15	0.42	0.51

The dairy farms without alpland considerably increased expenses, while dairy farms with alpland endeavoured to reduce them, with a view to re-establishing equilibrium; but the former, in spite of increased charges, secured a social income higher than that of the previous year, and the others, in spite of the reduction of expenditure they had undertaken, saw their social income, already small, shrink still further. The higher the prices, the more did success depend on the volume of production. Whereas the holders of dairy farms without alpland kept for themselves more than half the social income, those of the dairy farms with alpland were obliged to pass over to their creditors nearly four fifths of the social income. The actual interest on capital is further evidence of the unstable position of the dairy farms with alpland.

	Capital		Net return in schillings		Net return in % of assets	
	1932-33	1933-34	1932-33	1933-34	1932-33	1933-34
Dairy farms without alpland	2,381	2,853	22.2	41.2	0.93	1.44
Dairy farms with alpland . .	1,884	1,632	— 9.6	— 0.8	— 5.51	— 0.05

The slight recovery made by the net return for the dairy farms with alpland could not be reflected in the operator's income, as the indebtedness (with interest added) was too heavy.

Denmark.

The results of the financial year 1932-33 were as follows: a rise in the price of bacon balanced by the less value of the gross return from cattle; so pronounced a reduction of farming expenses that the social income was established at a level much higher than the figure of the preceding year.

The rise in the social income continued in 1933-34, for reasons which will be explained.

Crop Production per Hectare

	Cereals q. per ha		Root crops q. per ha		Milk kg. per cow	
	1932-33	1933-34	1932-33	1933-34	1932-33	1933-34
Farms less than 10 ha. . . .	29.82	29.07	63.59	63.29	3,496	3,790
» 10 to 20 ha. . . .	29.01	28.18	59.40	60.93	3,320	3,802
» 20 to 30 ha. . . .	30.32	28.77	63.41	61.29	3,549	3,680
» 30 to 50 ha. . . .	28.89	27.85	65.98	61.49	3,460	3,696
» 50 to 100 ha. . . .	28.99	27.41	57.97	59.11	3,281	3,580
» of over 100 ha. . . .	29.15	27.04	56.53	55.70	3,297	3,592

Livestock Numbers per 100 ha.

	Number of cows per 100 ha		Number of bull-calves and heifers per 100 ha		Pig numbers per 100 ha	
	1932-33	1933-34	1932-33	1933-34	1932-33	1933-34
Farms less than 10 ha. . . .	94.7	91.5	55.6	50.0	306.2	240.7
» 10 to 20 ha. . . .	71.3	71.4	63.2	59.6	201.5	179.5
» 20 to 30 ha. . . .	63.0	63.9	61.2	56.4	238.2	175.7
» 30 to 50 ha. . . .	57.9	56.5	55.7	53.0	195.0	146.3
» 50 to 100 ha. . . .	50.2	50.0	50.9	45.7	149.2	129.6
» of over 100 ha. . . .	45.8	44.1	38.9	35.1	94.4	74.9

The export trade slackened considerably, owing to the reduction of bacon imports into Great Britain and of consignments of cattle for the markets of other countries. Bacon exports fell from 390,000 kg. in 1932 to 294,000 in 1933; exports of live pigs on the other hand increased by 49,000 head. Butter exports decreased by 4.4 per cent. on the figure of 1932. The decrease of the exports of slaughter cattle was 58 per cent. and that of the export of beef, 12.5 per cent.

The regulation of the sale of animal products, which came into force in 1933, had the result of reducing the head of cattle and pigs in Denmark. Cereal yields were nearly as high as in 1932; the yield of hay was only one tenth of that of 1932; the yields of potatoes and sugar beet exceeded respectively 5 and 25 per cent. of the 1932 figure.

The quantities sold by the farmers of milk, cereals, potatoes, and sugar beet were nearly as large as in 1932; the increase in cattle and pig numbers was, for reasons just given, much less than in 1932-33.

Gross Yield in volume per Hectare.

(Quantities Sold and Delivered to the Farm Household).

	Cattle kg. of live weight		Milk kg.		Pigs kg. of live weight	
	1932-33	1933-34	1932-33	1933-34	1932-33	1933-34
Farms less than 10 ha. . . .	84	81	3,000	2,901	422	274
» 10 to 20 ha. . . .	87	84	2,198	2,187	295	197
» 20 to 30 ha. . . .	81	76	1,912	1,945	324	184
» 30 to 50 ha. . . .	71	73	1,780	1,730	263	156
» 50 to 100 ha. . . .	52	57	1,505	1,472	212	135
» of over 100 ha. . . .	35	46	1,505	1,472	127	83

	Cereals quintals		Potatoes quintals		Sugar beet quintals	
	1932-33	1933-34	1932-33	1933-34	1932-33	1933-34
Farms less than 10 ha. . . .	0.26	0.24	1.20	1.17	3.80	5.71
» 10 to 20 ha. . . .	0.78	0.73	1.07	1.05	2.84	5.24
» 20 to 30 ha. . . .	1.21	1.29	0.67	0.65	6.63	6.67
» 30 to 50 ha. . . .	1.21	1.29	0.67	0.78	3.32	3.81
» 50 to 100 ha. . . .	2.41	2.42	0.40	0.52	8.06	8.09
» of over 100 ha. . . .	5.69	5.24	0.40	0.65	6.63	6.67

Prices of agricultural products advanced along nearly all the line; this advance was due mainly to the depreciation in the Danish crown in January 1933.

The drastic reduction in cattle and pig numbers brought about a more or less marked decline in the gross return in crowns of all the groups of farms (Table I). The farming expenses however continued to increase and there was also a continuous advance in the social income. The operator's income was a little higher than the year before.

Prices of Agricultural Products in Crowns.

	1932-33	1933-34
Cereals (per quintal)	11.62	12.40
Potatoes (per quintal)	7.47	7.67
Sugar beet (per quintal)	2.11	2.10
Milk, liquid (per 100 kg.)	9.10	9.11
Butter (per quintal)	168 —	161 —
Bacon (per quintal)	98 —	137 —
Oxen (per quintal live weight)	31 —	37 —

Norway.

The position of the farmers, in 1932-33, improved in the districts of Trøndelag and Oestlandet; it became aggravated in the districts of Sörlandet and Vestlandet, where the gross return was lower.

In 1933-34 the situation became worse in the districts of Oestlandet, Vestlandet and Trøndelag, and improved in Sörlandet, where the production of pigmeat had been intensified on the small farms.

The price trend had no serious consequences for Norwegian agriculture, since, while the general price index of agricultural products rose from 112 in 1932 to 113 in 1933 (1909-1913 = 100), that of farming requisites fell from 138 to 133 and that of wages from 152 to 150.

Market Prices at Oslo, in Crowns per Kg.

	1932-33	1933-34
Wheat	0.17	0.17
Rye	0.15	0.14
Barley	0.15	0.14
Oats	0.13	0.12
Potatoes	0.05	0.05
Beef	0.85	0.94
Bacon	0.91	0.81
Butter	2.34	2.42
Swiss cheese	2.17	2.26
Pigmeat	1.10	1.01

Milk Prices in Öre per Litre.

	Oestlandet	Trøndelag	Sörlandet	Vestlandet
1932-33	13.8	11.7	13.7	11.4
1933-34	13.0	11.7	12.8	11.1
Decrease (%)	5.8	0.—	6.6	2.6

Although of excellent quality, the harvest in 1933 was less abundant than in 1932. In 1933 less attention was devoted to breeding of cattle; on the other hand more attention was given to pigs, sheep, goats and poultry. Except in the district of Sörlandet the quantities of cereals and potatoes sold were less than

in the previous year. Milk sales in the districts of Sörlandet and Vestlandet exceeded respectively by 7 and 3 per cent. those of 1932; in the other regions, the milk production was less abundant in 1933.

Gross Return in Volume per Hectare

(Quantities Sold and Delivered to Farm Households).

	Cattle kg. live weight		Milk kg.		Pigs kg. live weight		Cereals quintals		Potatoes quintals	
	1932-33	1933-34	1932-33	1933-34	1932-33	1933-34	1932-33	1933-34	1932-33	1933-34
Oestlandet	109	84	1,621	1,572	104	127	3.28	3.79	6.08	4.22
Trøndelag	103	97	1,242	1,122	63	71	3.43	2.13	4.32	1.42
Sörlandet	122	101	1,867	2,007	122	178	1.79	2.16	8.84	8.90
Vestlandet	109	101	1,356	1,401	88	114	0.44	0.41	6—	4.56

Although prices rose on the whole by 1 per cent., since production showed a smaller rise, the gross return in crowns came out at a lower level than the 1932-33 figures; in the Trøndelag district it was lower by 10 per cent., and by 6 per cent. in the Vestlandet district; in Trøndelag, it was the crop production that declined; in Vestlandet the crop production and the production of the branch shown as "other live stock." The gross return showed advance only in Sörlandet where pig fattening was in a flourishing position.

Expenses due to purchases of fertilisers increased in the districts of Oestlandet, Trøndelag and Sörlandet; but were lower in Vestlandet where smaller quantities were utilised. Prices of concentrated feeds were 2 per cent. lower than in the preceding year; purchases of feeds were however more considerable than in 1932-33 in the districts of Trøndelag and of Sörlandet. Farming expenses thus somewhat increased and the social income follows the variations in the gross return.

Labour costs in respect of wage labour were lower in all the regions. The proportion of operator's income was equal to 46 per cent. in Sörlandet, 72 per cent. in Vestlandet, and 36 per cent. in Trøndelag as compared with 34, 68 and 51 per cent. in 1932-33. In Trøndelag, the worse situation of the farmer was due to the fact that the gross return had fallen by about 15 per cent. In the Oestlandet region, the gross return, the social income and the operator's income were very nearly as they were in 1932-33.

In the district of Trøndelag, the remuneration of capital tended towards zero in 1933-34, while in the other districts its position was slightly improved.

Net Return as Percentage of Capital Assets.

	1932-33	1933-34
Oestlandet	1.86	1.92
Trøndelag	1.70	0.05
Sörlandet	0.21	1.16
Vestlandet	— 0.36	— 0.02

Sweden.

In consequence of the fall in prices of agricultural products and the decrease in production, the gross return and the social income of the farms of Upper and Lower Norrland which are mainly engaged in live stock farming declined in 1932-33. In 1933-34 the gross return and the social income of these farms fell lower still than in 1932-33. The gross return increased in Central and Southern Sweden where the arable crops are of more importance and, since the farms of the Centre and South are more numerous than those of Norrland, the average gross return of all the Swedish farms under the supervision of the Accountancy Office advanced by 16 crowns per ha.

Prices were firmer, except for prices of wheat, rye, potatoes, eggs, sheep and pigs, the decline in pig prices being the most noticeable.

The price of live pigs of 75 to 100 kg. which had been 65 crowns per quintal in 1932-33 fell to 52 crowns in 1933-34.

Prices of the Principal Agricultural Products, in Crowns per 100 Kg.

	1932-33	1933-34
Wheat	17.55	17 —
Rye	15.90	15.50
Barley	11.05	11.90
Oats	9.45	10.90
Potatoes	6.30	5.95
Sugar beet	2.43	2.61
Butter	179 —	228 —
Cheese	79 —	109 —
Milk	20 —	21 —
Steers	37 —	40 —
Pigs (75 to 100 kg.)	65 —	52 —
Eggs	101.60	91 —

Butter exports rose from 13,200,000 kg. in 1932-33 to 22,100,000 in 1933-34; bacon exports from 18,800,000 kg. to 19,200,000; the export of eggs on the other hand diminished from 61,100,000 to 48,700,000 eggs.

The production of beef and of pigmeat in Upper Norrland increased by 10 and by 32 per cent. as compared with 1933-34; in Lower Norrland the produc-

Gross Return in Volume per Hectare

(Quantities Sold and Delivered to Farm Households).

	Cattle kg. of live weight		Milk kg.		Pigs kg. of live weight		Cereals quintals	
	1932-33	1933-34	1932-33	1933-34	1932-33	1933-34	1932-33	1933-34
Upper Norrland . . .	38	42	739	626	32	53	0.89	0.83
Lower Norrland . . .	39	48	729	668	52	53	1.25	0.96

tion of beef exceeded that of 1932-33 by 23 per cent. and the production of pigmeat was higher by 2 per cent. But sales of cereals, and especially the milk production, was on a lower level than that of 1932-33.

The lowering in the gross return is due to the decrease in dairying production and in crop production (Table I). Farming expenses were increased; the fall in the social income was even larger than that in the gross return; the share in the social income falling to the operator was noticeably reduced.

Capital invested in farming no longer yielded interest:

	Net Return	in 1932-33	in 1933-34
in % of the assets	Upper Norrland	— 9.93	— 0.93
	Lower Norrland	0.13	— 0.49

Finland.

The gross return was increased in 1932-33, owing to the higher prices for pigs, eggs and crop products. The farming expenses were as before, so that the social income rose with the gross return.

In 1933-34 the rise in the gross return and in the social income continued. The prices of live stock products advanced; milk prices by 5.9 per cent., butter prices by 3.5 per cent., beef prices by 12 per cent. and pigmeat prices by 2.3 per cent.; on the other hand, prices of cereals, potatoes and eggs declined in the following proportion: wheat, 1.9 per cent., rye 11.4 per cent., potatoes 16 per cent., eggs 18.9 per cent. The prices, in marks per quintal, of the principal agricultural products, are as follows:

	1932-33	1933-34
Wheat	260	225
Rye	220	195
Barley	175	175
Oats	121	119
Potatoes	50	42
Milk	11.8	12.5
Butter	201	208
Cheese	150	150
Beef	50	56
Pigmeat	88	90
Eggs	148	120

The cereal crops, except for oats, were more abundant than in 1932. The yield in potatoes exceeded by 45 per cent. that of 1921-25, by 29 per cent. that of 1926-30, by 18 per cent. that of 1931 and by 20 per cent. that of 1932. The fodder root crops, the natural grasslands and sown meadows were less productive than in 1932. On the side of the exports a decrease in sales of butter abroad is to be noted with a perceptible increase in the exports of bacon, eggs and cheese.

To maintain production, the Government increased import duties and export premiums on the principal products and imposed a duty on imported margarine and fodders. The approval of Parliament was given to the Government decision to allocate 95,000,000 marks on the public finances, destined to cover the payment of new export premiums on eggs, bacon, cheese and butter in the course of 1934.

The farmers sold smaller quantities of cereals, reduced the milk production and gave more attention to the production of beef and pigmeat.

Gross Return in Volume per Hectare

	Cattle kg. of dead weight		Milk kg.		Pigs kg. of dead weight		Cereals quintals	
	1932-33	1933-34	1932-33	1933-34	1932-33	1933-34	1932-33	1933-34
Farms of less than 10 ha.	19	22	774	749	22	26	2.08	1.89
» from 10 to 25 ha.	16	19	674	659	20	23	1.94	1.80
» from 25 to 50 ha.	13	16	652	662	19	22	2.27	2.12
» over 50 ha.	12	13	691	733	19	21	2.41	2.25

It was thus due to the rise in prices of live stock products, together with the increase in cattle and pig numbers that the gross return in marks of 1933-34 was established at a level above the figure of 1932-33.

Farming expenses increased. The index for farm requisites fell from 88 to 85 (1926-28 = 100) but the farmers made larger purchases than in the previous year.

The margin, however, between the increase in gross returns and that in the farming expenses was sufficient to allow of an advance in the social income.

The index of farm wages fell from 82 in 1932 to 81 in 1933, the charges represented by interest also fell; in consequence, proportionately to the social income, the part assigned to third parties was less high in 1933-34 than in 1932-33, and the position of the interest on family capital and of the operator's income was strengthened.

The actual interest on capital invested was also more satisfactory:

	1932-33	1933-34
Farms of less than 10 ha.	3.46	4.05
» of 10 to 25 ha.	3.90	4.73
» of 25 to 50 ha.	4.87	5.63
» over 50 ha.	4.30	4.93

In a forthcoming article, we shall deal with the social income in 1933-34 of farms engaged mainly in crop production.

J. DESLARZES.

INTERNATIONAL CHRONICLE OF AGRICULTURE

From 1938 the *Monthly Bulletin of Agricultural Economics and Sociology* will contain an INTERNATIONAL CHRONICLE OF AGRICULTURE. The CHRONICLE will give an account of the evolution of agricultural policy in the different countries, with special reference to the measures affecting the marketing and the formation of prices of the principal agricultural products.

It has indeed been felt that the evolution of Government policies bearing upon agriculture should be more closely followed in the Institute's publications, and that the survey of such policies given in THE WORLD AGRICULTURAL SITUATION published annually since 1929-30 should be supplemented by more frequent reviews in the *Monthly Bulletin*.

In order to avoid duplication of work, it was decided that the CHRONICLE should absorb the contents of the quarterly bulletin on *Government Measures affecting Agricultural Prices*, and this latter accordingly ceased publication in December 1937. The information formerly contained in it will be found in the sections of the CHRONICLE for the different countries dealing with "Measures affecting Markets and Prices."

A certain amount of overlapping between the contents of the first instalments of the CHRONICLE for the different countries and those of the last two issues of the bulletin on *Government Measures* could not be avoided. The CHRONICLE has to take up the account of the policies followed by the different countries from the point to which they are brought in the volume of THE WORLD AGRICULTURAL SITUATION IN 1936-37. This, in the case of many countries, necessarily means having to cover the ground already covered, in a different way, by the other publication.

The CHRONICLE will consist, in the main, of separate accounts of the agricultural policies followed by the different countries, which will be divided into two parts, preceded by a brief Introductory Note. The Introductory Note will give a very succinct account of the economic and agricultural conditions during the period under review, thus providing the background necessary for the proper interpretation of the measures adopted. It will be followed by a section on "Measures affecting Markets and Prices," which will contain an account of measures of commercial or agricultural policy aimed at the regulation and control of the markets and prices of the principal agricultural products. Another section under the heading "Measures affecting Agricultural Economy in General" will deal with all the other important activities of the Government bearing upon agriculture and rural life generally.

When there are any important international developments to report during the period covered by the CHRONICLE, such as international agreements, etc., bearing upon agriculture, they will be dealt with in a special section under the heading "International Activities," which will precede the notes on the different countries.

BELGIUM

Since the devaluation of the currency in March 1935 there have been improvements in the economic situation of the country, but the forces of recovery have been unequally distributed. They have shown themselves above all in industry and finance. The index of industrial production rose from 109 in September 1936 to 125 in June 1937, not reaching however the 1929 level.

Foreign trade has continued to increase. Except as regards the export of manufactured goods the general trade results approach closely those of the early months of 1928 and do not appear to lag behind industrial production. The increase in trade has been particularly marked in the case of imports of raw materials.

On the other hand, the marked industrial recovery has occasioned a re-absorption of the unemployed.

Sales have been aided by the reduction of unemployment and the rise in wages, by the increase in industrial profits, by the fall in interest rates, and, finally, by the rise in commodity prices, which has induced buyers to become less hesitant.

The inequality of the recovery, to which we referred above, has, however, been most evident in agriculture, where the return to prosperity has been more difficult.

At the end of 1935, as a result of favourable price relations, total profits had developed fairly quickly relatively to those in other fields of activity. Since then, the profitability of agriculture has not kept pace with the economic recovery of the country as a whole.

The situation of agriculture may be indicated by the weighted agricultural index constructed by the *Boerenbond*, which has as a base the period from 1 July 1909 to 30 June 1914. The index treats Belgian agriculture as if it formed one large undertaking. The economic situation of agriculture since the last devaluation of the currency was as follows:

	Agricultural receipts — Index	Costs of production — Index	Difference between indices of costs and receipts as per- centage of index of costs
March 1935	406	606	33.0
September 1935	540	633	14.7
March 1936	541	667	18.8
September 1936	548	705	22.3
April 1937	562	731	23.1
September 1937	630	739	14.8
October 1937	634	750	15.4

The difficulties of Belgian agriculture, after having been for a time less severe, have again become acute. In fact, the excess of the cost of production index over that of receipts increased from September 1935 until April 1937. This disequilibrium is a cause of concern to rural circles, particularly as the products of Belgian agriculture must almost wholly be sold on the domestic market. The safeguarding of the domestic market is thus of fundamental importance.

I. — MEASURES AFFECTING MARKETS AND PRICES

General Price Policy.

In view of this situation, the Belgian Government has adopted measures which aim, in general terms, at lessening the effects of foreign competition. In doing so, it has taken care not to exaggerate the necessary protection for fear of provoking too marked a rise in the cost of living.

The Government's action in regard to agriculture was defined in the Ministerial declaration of 24 June 1936. This document declares the intention:

(1) to pursue energetically a policy of valorisation of the products of the land, so that the farmer may find in prices his fair reward;

(2) to encourage the standardisation of products, the improvement of the relations between producers and consumers, the creation and development of industries which enable the surplus of production to be utilised;

(3) to seek, in the conditions of stability regarded as necessary, the solution of the problem of equilibrium between animal husbandry and arable farming.

This programme aims, in fact, at the restoration of the profit margin of agricultural undertakings.

To aid the putting of the programme into operation, there was set up, in May 1937, at the Ministry of Agriculture an Agricultural Planning Committee (*Commission d'orientation agricole*), which was given the task of making a survey of the country's agricultural activities, of studying their situation, of examining the available markets and of helping to draw up a general plan for these activities.

Besides this measure of a general character, may be noted the measures for the protection of the markets of the principal products which have a particular interest in that they affect prices directly and, in a complex way, indirectly.

Measures concerning the Markets for Particular Products.

THE GRAIN MARKETS.

To aid grain growers production bounties have been granted since 1933 in order to diminish the loss which the farmer would suffer from too sharp a fall in prices. Prices having risen since the 1936 harvest, the Government, in order to prevent the too rapid rise in prices of the principal means of subsistence, abolished the bounties as regards the harvest of 1937. By a royal decree of 27 February 1937 the Government suspended the levying of special duties raised on licences to import wheat, rye and barley. These duties amounted to 10 francs per quintal for each of these products.

A new order of 30 June 1937 (1) has extended this measure to the derivatives of wheat, rye and barley.

The suppression of the cereal import licence fee does not however signify any change in the agricultural policy of the Government especially as regards the valorisation of cereals. In fact it has been officially declared that if the state of the market should make a new intervention necessary to maintain prices, the tax on import permits and the production bounties would be re-established.

(1) *Moniteur belge*, No. 185, 4 July 1937.

To put grain-growing on a firmer basis in Belgium — a country which produces one quarter of the wheat that it needs and must import the rest — efforts have been made to link grain-growing more closely to the milling industry. To this end, it is sought to improve the home-grown wheat as regards homogeneity in variety and presentation and to insist on the use of a proportion of Belgian wheat in the manufacture of bread. There has thus been created a Committee for the Standardisation of Home-grown Wheat (*Commission pour la standardisation du blé indigène*) which decided, at its meeting of September 1937, to proceed with the standardisation of home-grown wheat of the 1937 harvest. The Committee has also drawn up a standard type of contract according to which all transactions shall be made, or at least those which concern the delivery of wheat to the miller.

DAIRY PRODUCE MARKETS.

The effort of the Government has been greatest in the field of dairy produce. In this case the central problem is that constituted by the strong competition of margarine against butter. In recent years, the development of the consumption of margarine has been to a great extent at the expense of butter. In 1936, the production of margarine rose from 45,000 to 52,000 metric tons. With a view to moderating the fluctuations of the prices of dairy products to the degree required in the interest of agriculture and having regard to the needs of consumption, the law of 26 March 1937 (1) empowered the Government to regulate and restrict, or to make conditional on authorisation, the manufacture, trade and sale of margarines, oleo-margarines and vegeto-animal and animal prepared alimentary fats. The authorisations to manufacture were to be the occasion for the levying, at the expense of the manufacturer, of a supplementary excise duty of 50 francs per quintal, except on the produce intended for export.

The importation of these same products was to be dependent, as from 16 April 1937, on the production in advance of a special permit (2).

A royal decree of 5 May 1937 (3), requires, further, that whoever shall keep butter either in cold storage or in any other way, in quantities of not less than 100 kgs., shall inform the Ministry of Agriculture of the quantities added or subtracted during each fortnight and the stocks in hand at the end of this period.

But the Government has elaborated a scheme for the reorganisation of dairy production, which includes three forms of remedy.

The first consists of those already in application or which will be progressively brought into operation.

These are, *inter alia*:

- (1) The legislation concerning margarine, in force since 16 April 1937, to which reference has already been made.
- (2) The cold storage of butter during the period of greater production.
- (3) The possibility of creating an export trade by means of subsidies.
- (4) The increase of the manufacture of milk powder for the making of chocolate (from 1937 the whole of the milk powder required by the chocolate industry will be provided by domestic production).

In connection with this group of measures we may note that a ministerial order of 3 December 1937 (4) has fixed at 5.50 francs per kg. the special fee to be levied on butter import permits.

(1) *Moniteur belge*, No. 95-96, 5-6 April 1937. — (2) *M. B.*, 5-6 April 1937. — (3) *M. B.*, 6 May 1937. — (4) *M. B.*, No. 338, 4 December 1937.

A second series comprises measures which do not have immediate effect but the results of which will be progressively felt in the near future. We may note:

(1) The ever increasing extension of the manufacture of whole milk powder, of dried buttermilk and of dried skimmed milk.

(2) The protection of the cheese industry and the development of this industry.

(3) The extension of the consumption of liquid milk.

At the beginning of June 1937 a bill was laid before the Senate office proposing the institution of a National Office for Milk and Milk Products (*Office national du lait et de ses dérivés*) (1). Its purpose would be the promotion of improvement in production, distribution and marketing of milk and its products.

Lastly, a third series of measures consists of those which will necessarily be slow in producing their effects. Their purpose is to diminish costs and improve the quality of the products. They are concerned with:

(1) The improvement of cowsheds and the construction of silos for green fodder.

(2) The making of arrangements for the checking of quality and the regulation of the manufacture and distribution of the products.

THE MEAT MARKETS.

Beef and Veal. — In Belgium the production of beef and veal is closely bound up with dairy production, to which it forms an important complement. The value of cattle delivered to the slaughter houses in 1936 is estimated indeed at 1,500,000,000 francs.

The economic results of beef production have not been very satisfactory since 1932. At present they are still only moderate, for the rise in production costs since March 1935 has not been compensated by a corresponding increase in the sale price of adult cattle.

To prevent a collapse of prices the Government has, since 1932, levied import duties and import licence fees on live cattle and on beef. It is sufficient to recall that the import duty, added to the licence fee, represents, for imported live cattle, a charge of 157.50 francs per quintal live weight. The other classes of beef benefit from a similar system of protection to that of live cattle.

The desire to improve the producers' position without unfavourably influencing consumption induced the Government in 1934 to suppress all taxes on the imports of livestock feed: rye, barley, and oil-cakes.

In order to organise the systematic improvement of cattle breeds and thus to bring about the recovery of this branch of farming, the royal decree of 16 March 1937 (2) regulated the subsidies granted to cattle-breeding associations.

This decree created a Technical Stockbreeding Committee (*Comité technique de l'élevage*) for the study of measures to be taken in the interests of stockbreeding and fixes the amount of subsidy which may be granted to stock-improvement associations.

A sum not exceeding 515,000 francs for the whole country may be distributed annually between nine federations which group, each in a different province, the associations formed with a view to increasing the numbers of high class animals able to contribute to the improvement of cattle breeds.

(1) The present *Bulletin* was going to the press, when information was received that the bill in question had been passed into law.

(2) *Moniteur belge*, No. 102-103, 12-13 April 1937.

The same decree provides for the granting of other subsidies, among which are the following:

- (1) A sum not exceeding 500,000 francs to be allotted to recognised stock-breeding associations for the purpose of organising the control of dairy production;
- (2) A sum not exceeding 250,000 francs to be divided between the nine provinces and to be used to encourage efforts to determine the profitability of cattle;
- (3) A sum of 200,000 francs to be distributed between the associations for the purchase and collective maintenance of bulls in order to facilitate the acquisition of first class sires;
- (4) A sum not exceeding 1,875,000 francs to be divided between the provinces which organise competitions and stock judging, having as a purpose the selection of bulls to be available for public use.

Pig Meat. — The market for pigs is characterised by fluctuations of a more or less cyclical character and of great amplitude. As a result there are difficulties in drawing up and putting into operation measures in favour of this branch of live-stock production. Up to the summer of 1937 prices had for some time been continually declining as a result of heavy production. After a slight rise in the months of June, July and August, prices have settled down and tended to become stationary.

In the course of recent months there have been various acts of intervention in favour of pig meat production. Since the levying of an import duty and an import licence fee had not been sufficient to improve selling prices, the importation of pig meat was no longer authorised as from November 1936. On the other hand exports have been increased. The exports of pig meat in the first seven months of 1937 amounted in fact to 16,489 quintals as compared with 3,220 quintals in the corresponding period of 1936. These interventions have prevented a pronounced weakening of the prices.

THE MARKET FOR SUGAR-BEET.

This is a product of importance to the country on account of the advantages it offers in regard to crop rotation, of the amount of labour employed in its cultivation, of the important industry to which it gives rise and of the fodder supplies which it makes available to producers. Owing to complaints by the growers that there had been too great a rise in production costs and that the distribution of profits and losses between themselves and the industrialists was unsatisfactory, the Government appointed in 1936 a Sugar Committee giving it the task of determining costs of production and the actual profitability of the farms. In its meeting of 17 September 1937 the Commission adopted the following decision, which aims at improving the position of beet growers:

- (1) In all sugar factories and places to which sugar-beet is delivered, deliveries shall be made in the presence of delegates both of the sugar manufacturers and of the beet growers' organisations of the three regions of Hesbaye, Hainaut and Flanders;
- (2) The directors of the State laboratories will exercise supervision over the operations at delivery and assure the accuracy of the apparatus for the determination of the sugar content of the beets;
- (3) The quotations to which reference will be made in fixing the standard price of the beets will be those of crystallised sugar;
- (4) The amount of the special protection fixed at 60 francs per 100 kilogrammes of sugar having to be paid to the growers per ton of sugar-beet and on the basis of the yield of sugar, it is allowed that this yield may be fixed at 135.5 kilogrammes

of sugar per ton of sugar-beet, representing 16.5 per cent.; this yield may be subject to reconsideration should important changes occur in the methods of cultivation of the sugar-beet or in the manufacture of sugar;

(5) The Committee has proposed to fix the sugar production quota for the 1937-38 season at 255,000 tons of raw sugar.

II. — MEASURES AFFECTING AGRICULTURAL ECONOMY IN GENERAL

Creation of a National Institute of Agricultural Credit.

The efforts of the Belgian Government to normalise markets and prices and to restore the farmer's profit margin could not attain satisfactory results without the aid of credit to the farmers. In fact, in present circumstances, in Belgium, the system of agricultural credit no longer entirely is adequate to meet current needs. For this reason, a National Institute of Agricultural Credit was created by a royal decree dated 30 September 1937 (1).

The State guarantees, to the extent of 100 millions francs, the repayment of the capital and the payment of the interest on the shares, bonds and loans issued by the Institute.

The State and the General Savings and Pensions Bank (*Caisse générale d'épargne et de retraite*) place at the disposal of the Institute an establishment fund amounting to 30 millions, each contributing a half; the purpose of this fund is to enable the Institute to organise its services and to carry out its first operations.

The operations of the Institute consist in facilitating the granting of, or in granting, loans or other forms of credit to farmers, either directly or indirectly. To this end, it may discount bills, warrants, orders for goods and receipts of delivery of agricultural produce. Its field of operations may include agricultural undertakings, agricultural co-operative credit societies, co-operative societies for the purchase, sale or transformation of agricultural products, co-operative societies for the purchase and sale of livestock, fertilisers, seeds, crops and, in general, of merchandise and products connected with farming.

FRANCE

At the end of June 1937 the lower limit to the exchange parity of the franc, which was fixed by the monetary law of 1 October 1936 and which gave a rate for the pound sterling of about 112 francs, was discarded. At this time the rate for sterling became at first about 129 francs. After a period of fluctuation, during which, at the end of September, it rose above 153 francs, the rate for sterling was maintained at about 147.25 francs at the beginning of December.

The Bank of France, which had raised its discount rate at the time of the crisis of June-July from 4 to 6 per cent., reduced it on 7 July to 5 per cent., and after that by successive stages to 3 per cent.

(1) *Moniteur belge*, No. 296, 23 October 1937.

The following table shows the movement in prices:

Unweighted Weekly Price-indices
Published by the "Statistique Générale de la France."

(Base, 1914 = 100)

	General index (45 articles)	Index of prices of imported goods (16 articles)	Index of prices of national products (29 articles)
Last week of June 1937	538	491	564
» » » July »	581	572	584
» » » August »	591	567	604
» » » September »	618	595	631
» » » October »	611	559	641
» » » November »	590	506	636

It is to be noticed that the movements of the index of prices of national products are much less large than those of the index of the prices of imported goods or even than those of the general index.

The total value of the foreign trade of France increased greatly in June. In July and August it fell and then increased again after September. The figure for November is the highest recorded since February 1931 for imports and since November 1931 for exports. As exports had suffered more than imports from the crisis in foreign trade, and since they have shared much less in the recovery in this trade which has occurred since September 1936, the deficit on the French balance of trade has been increasing.

I. — MEASURES AFFECTING MARKETS AND PRICES

Trade Agreements.

France concluded in the second half of 1937 several trade agreements certain of which benefit French wine exports.

TRADE AND PAYMENTS AGREEMENT WITH GERMANY.

The most important agreement is that with Germany, of 10 July 1937 (1). This is to govern the economic and financial relations between the two countries, in principle for two years; it can however be denounced on three months' notice to cease to operate at the end of any quarter, but not before 30 June 1938. It came into force on 1 August 1937 and comprises an economic agreement in the strict sense and a payments agreement. The specifically commercial agreement is based on the reciprocal granting of the most-favoured-nation clause. French wines benefit from the consolidation or reduction of the duties on their entry into Germany. On the other side of the account of purchases made by France from Germany, the latter country undertakes to divide the foreign currency put at the disposal of German

(1) *Journal Officiel*, 19 July 1937.

importers for purchases from France, among all the items of the German tariff on the basis of agreed percentages. The share reserved to wine exporters in relation to the total exports from France to Germany can reach 3 per cent., a percentage very close to the 3.3 per cent. recorded during the period 1920-30. Following this agreement exports of wine to Germany, which during the recent years had fallen to an insignificant volume, have increased.

The payments agreement puts an end to the operation of the clearing system. The payments for imports from Germany like those for French exports to that country will in the future be made in the manner customary in international relations. By the control of three government committees which are to meet periodically an equilibrium in the payments in respect of the exchanges will be continuously maintained so that no delay in payments for French exports shall arise. Thus the possibility of the formation of commercial arrears is excluded. The banks will be able in the future to play once again their parts of intermediaries between importers and exporters.

OTHER TRADE AND PAYMENTS AGREEMENTS.

A supplementary clause to the trade agreement of 29 August 1929 between France and Turkey came into force on 1 August 1937 for a period of one year (1). It will be renewed by tacit extension for equal periods if not denounced by one of the parties three months before its expiry. It contains the principle of the most-favoured-nation clause but a certain number of articles are excepted from this, notably Turkish rye and maize. At the same time as this supplementary clause there came into force a payments agreement between the two countries. This will be renewed under the same conditions as the commercial agreement; it has the object of settling both commercial credits in arrears and also the current exchanges either by private compensation or by clearing arrangements (2).

The *modus vivendi* between France and Italy expired on 30 June; it was replaced by temporary agreements, which are renewed from time to time. The quotas reserved to France for the imports of French goods into Italy were calculated on the basis of 85 per cent. of the value of Italian exports to France.

A decree of 3 August 1937 brought into temporary operation the provisions arranged by the exchange of letters dated 30 July 1937 between France and Canada. The French Government grants the benefit of the minimum tariff on a certain number of Canadian products (notably calves' brains and sweetened condensed milk); it increases from 1.2 to 2 per cent. the general quota for Canadian feeding stuffs. The Canadian Government lowers from 17.5 to 10 per cent. *ad valorem* the rate of its intermediate tariff for a certain number of products which do not interest us here in this Chronicle.

The two governments undertook further to elaborate before 31 March 1938 an agreement of a more general character in order to complete the conventional arrangement at present in force (3).

In October commercial agreements were signed between France and the following countries: Lithuania, Estonia, Yugoslavia. The agreement with Lithuania grants to France tariff reductions in respect of French wines and brandies; that with Estonia consolidates the duties on wines and spirits. The two agreements contain the most-

(1) *Journal Officiel*, 10 June 1937. — (2) *J. O.*, 30 June 1937. — (3) *J. O.*, 8 August 1937.

favoured-nation clause, that with Estonia for all goods, and that with Lithuania for a certain number of goods, notably cereals, and cereal products, suet and lard, and milk products.

New arrangements, which have entered into provisional operation from 13 December 1937, have been added to the Franco-Polish agreement of 22 May 1937. The French government authorises the entry of quotas fixed by Ministerial decree: (a) of young wethers and ewes of Polish origin, bred from rams imported from France, and entered in the pedigree stock books; (b) fresh and chilled meat of young wethers and ewes of the same origin. The quotas will be subject to the minimum French tariff. Further there will be repaid to the Polish government a part of the minimum tariff duty, fixed thus; (a) in respect of young wethers and ewes, the difference between the normal duty of the minimum tariff and the duty of 102.50 francs per 100 kg. (live-weight); (b) for fresh and chilled meat the difference between the normal duty of the minimum tariff and the duty of 138.40 francs per 100 kg. net (1).

Customs Tariff.

The French government has renounced the policy of reduction of the customs tariff which it had begun after the devaluation in October 1936. The tariff duties being specific were automatically made less onerous by the rise of prices of imported goods resulting from the fall in the exchange value of the franc. The law of 9 July 1937 authorised the Government to modify tariff duties by decree, for a period up to 31 January 1938. It is expressly provided that this authorisation will, in respect of agricultural products, operate to effect only increases in duties. If not ratified within five months from their presentation in the Chambers the decrees will automatically cease to have effect. Finally, permanent provisions have been introduced by this same law into the tariff code, particularly the following:

(1) Whenever imported goods show at the frontier a price 20 per cent. lower than the import price which served as the basis in fixing the minimum tariff a compensatory duty will be introduced. However this provision will not be applied when the lower prices of imports from abroad are associated with a general reduction in the costs of production ascertained to have taken place both in France and in the principal producing countries.

(2) Agreements, arrangements, commercial treaties and their annexes, in whatever form they are drawn up cannot be put into operation when they contain provisions affecting the tariff and customs system until the date on which the law for their ratification has been deposited in the bureau of the Chamber of Deputies. During a recess or adjournment of the Chambers the Government can put the provisions of the agreements or treaties into force but it must on the reassembling of the Chambers immediately (2) introduce a bill to ratify them. This provision has no retroactive effect.

The decree-laws which followed have had the object of bringing the customs duties back to their September 1936 level. They raised them firstly by 13 per cent., the rise being later increased to 14 per cent. These increases do not apply to a certain number of agricultural products among which are milk, condensed milk, and cheese. The second increase does not apply to certain cereals. The rates of import duties on goods subject to quotas which were also reduced in October 1936 have again been raised by 25 per cent. (3).

(1) *Journal Officiel*, 11 December 1937. — (2) *J. O.*, 10 July 1937. — (3) *J. O.*, 9 April 1937.

General Price Policy.

The law of 19 August 1936 on the rise in prices, which was voted just after the social reforms of the summer of 1936 and which had the object of preventing these reforms from leading to an excessive rise of industrial prices, set up a committee to supervise prices. After the monetary crisis of June 1937 the decree-law of 1 July 1937 repealed and replaced this law. It reorganised the price committee under the name of National Committee for the Supervision of Prices, and placed it under the Ministry of Finance.

Agricultural products sold directly by the producers and those the prices of which are fixed directly by decisions regularly approved by the Minister of Agriculture are excepted from the provisions of the Decree of 1 July and from the competence of the Committee for the Supervision of Prices.

Actually, on the one hand, in respect of fruits, vegetables, and other perishable agricultural products and food stuffs sold by middlemen, the Departmental Committee for the Supervision of Prices can require justifications in respect of every increase of prices and if, after examination, these justifications seem to the Committee to be insufficient, it can cause proceedings to be brought against those responsible for the increase.

On the other hand, every increase in the prices of the means of production — agricultural machines, fertilizers, sulphate of copper, lime, plaster, building materials — is subject to the previous authorisation, according to the case, of the Departmental Committee, or of the National Committee. A Decree of 5 November 1937 abolished the rule of previous authorisation for all products except those indicated in a special list. This list included all the agricultural requisites mentioned above.

Measures concerning the Markets for Particular Products (I).

THE WHEAT MARKET.

System of Previous Wheat Export. — The import of foreign wheat is still prohibited. However, it is still permitted under the special customs system of previous export of either national grain, or flour and farinaceous food products made from wheat. The Decree of 4 November 1937 (2) regulates minutely the conditions of this previous export for the period ending 31 October 1938. A premium allows exporters to sell the compensating products abroad at world prices. This premium is drawn from the sum collected at the time of the compensated wheat imports and cannot exceed the amount of the tariff duties on this wheat. The ministerial orders of 2 August and 5 November fixed at 92 francs per quintal this premium for wheat imported in compensation for previous export of milling products or of derived products. The premium for wheat imported in compensation for previous export of national wheat in grain is, according to the provisions of the order of 5 November 1937, 73.40 francs per quintal.

Even under this special system import is moreover authorised only within the limits set up by a ministerial order also dated 5 November 1937 (3).

For millers who had imported wheat under the old system of temporary admission which was replaced by that of previous export, these limits are fixed in relation to the quantities of wheat imported in previous years. The Decree of 4 November

(1) For details of import quotas of the principal agricultural products we refer the reader to *Government Measures Affecting Agricultural Prices*, No. 12, International Institute of Agriculture, Rome. — (2) *Journal Officiel*, 7 November 1937. — (3) *J. O.*, 7 November 1937.

1937 (Article 13) prohibits to them, however, previous exports of wheat. As for other millers it authorised them, on the contrary, to effect previous exports of wheat or flour, according to their choice, but it required them to state, at the time of their first demand, their choice, which will hold good for all the season.

The Wheat Office issues the import and export permits.

On the other hand all commercial undertakings can be authorised to export seed wheat in compensation for subsequent imports of soft foreign wheat. The imports are authorised only for an amount limited to 20,000 quintals yearly.

Fixing of the Price of Wheat. — The price of wheat is in principle fixed by the Central Council of the Wheat Office. But the Council can take a decision in this matter only on condition that four fifths at least of the members are present and that there is a majority of three quarters. When these conditions are not fulfilled the decision is with the Government. This was the case in the summer of 1937.

For the fixing of the price of hard wheat the quorum of four fifths was not obtained. The price of hard wheat was fixed by decree of 30 July 1937 for the 1937-38 season at 170 francs the quintal with a monthly premium of 1 franc up to and including January and of 1 franc 50 centimes during the following months. Since then, in order to take account of the increases in the costs of transport, this price was raised by 3 francs per quintal.

For the price of soft wheat, the price for the 1937-38 season was thus fixed by the Government. This price is 181 francs per quintal to which is added a monthly premium of 1 franc up to and including January and of 1 franc 50 centimes after that. This price applies to wheat of good quality, free from impurities, and merchantable, and weighing at least 76 kg. per hectolitre. The price of soft Algerian wheat has been fixed at 178 francs for wheat weighing at least 78 kg. per hectolitre. Premiums and deductions are provided for wheat of superior and inferior quality.

When the price of wheat of a new harvest is higher than the price in force at the end of the preceding season, the holders of stocks are required to pay a compensatory levy calculated according to the size of their stocks. The scale of these levies is fixed per quintal at the difference between the price of wheat at the end of the preceding season, including all the premiums, and the price fixed for the new crop.

The holders of stocks of wheat are required to declare within 10 days following the fixing of the price of wheat all the stocks of which they hold on whatever account. The millers, semolina producers, and bakers, have also to declare the stocks of flour suitable for bread and semolina which, on the day of the fixing of the price of wheat, they have in their possession, or which they have in the storehouses of third parties, or which still have to be delivered to them, or which are in transport.

Milling Quotas. — The Decree-law of 30 October 1935 had set up a limit to the grinding of each mill, and prohibited the creation of new establishments or even the extension of the grinding capacity. It set up a milling industry committee. From this plan were excluded mills with a grinding capacity of less than 3,000 quintals.

The Milling Industry Committee has drawn up a report. The report requires that the quota for each mill shall be determined "taking account, on the one hand, of the arithmetical average of its maximum wheat grinding effected during the years 1927 to 1935, and, on the other hand, of its annual wheat grinding capacity calculated on the basis of 300 days per year." The Vocational Committee of the Milling Industry will be invited by the Minister of Agriculture to "endeavour to establish a compulsory syndical vocational organisation of the milling industry, which would enable the industry, within the boundary either of the region or of the department, to reabsorb progressively and methodically the excess productive capacity by means of the cor-

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porative buying up of certain mills according to methods which will take account at the same time of the convenience of the disposal of wheat, the needs of consumption and those of national defence." This report was submitted to a referendum of the millers and approved by 79.54 per cent. of the number of the millers consulted (1).

THE MAIZE MARKET.

Reduction of the Quota. — The quota of maize imported from abroad has been reduced. This measure interests, however, colonial growers more than those of the mother country.

THE OATS MARKET.

Restriction on Import. — The import of oats is still prohibited. However the import of oats for the needs of national defence is still authorised. Actually since the first months of 1937 the military commissariat, which in France is the principal buyer of this cereal, has drawn its supplies from abroad.

THE MEAT MARKET.

Import into France of Tunisian Pigeat. — A decision of the Minister of Agriculture of 15 November 1937, making an exception to the provisions of the decree of 17 January 1937, provided that pigeat from Tunis should enter into France under the same conditions as does that from the colonies, even if the edible offals be not attached. The animals have to be slaughtered under the supervision of a French veterinary in Tunis.

THE BUTTER MARKET.

Export Subsidies. — From 13 July 1937 the rate of subsidy to butter exporters, which was 600 francs per quintal, was lowered to 400 francs per quintal.

Import Quotas. — A quota of 5,000 quintals has been fixed in order to allow the formation of a stock for emergencies, but butter will only be imported if it is required to meet the needs of the market.

Stocks. — The prices of butter were subject last summer to a very severe seasonal fall. Measures have been taken to avoid in the future these large fluctuations. Such is the object of the decree of 15 September 1937 concerning the formation of butter stocks.

These stocks will be built up by voluntary agreements between the State, represented by the Minister of Agriculture, and the co-operative dairy societies and unions of co-operative dairy societies or manufacturers of milk products or traders in such products.

THE SUGAR MARKET.

Limited Admission of Sugar Imports. — A quota of 10,000 tons has been fixed for the admission of imports of foreign sugar in order to provide a stock for emergencies; the quota sugar will be imported only if the requirements of the markets make it necessary.

(1) *Journal Officiel*, 6 November 1937.

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Market Organisation. — The production and marketing of sugar in France was organised as from 1931 by the producers themselves. In 1934 the colonial producers joined this organisation and they entered into agreements with French producers according to which they divided the French and Algerian markets between them. This organisation has been officially sanctioned by the Government since 1935. The agreements between French sugar manufacturers and sugar-beet growers which had just expired were renewed on 1 July 1937. The new agreement will remain in force till 1940.

Quota for Colonial Sugar Imported into France. — On the other hand, the agreements between the French producers and the colonial producers, which expired on 30 October, have not yet been renewed. That is why a decree of 30 September 1937 fixed provisionally the quotas of colonial sugar to be imported into France and into Algeria for the period 1 October to 30 September 1938.

At the same time came into force on 1 October 1937 a decree-law of 27 August 1937 which cancelled and replaced the Decree of 30 October 1935 by which the Government had sanctioned the agreements between the French and the colonial producers. Article 4 of the Decree-Law of 27 August 1937 states that: "the consumption taxes, amalgamated with the old single tax and every other tax both in France and in Algeria are quadrupled in respect of sugar from the colonies supplied for consumption in France, and in Algeria, in violation of the provisions of laws or regulation and of approved contracts having the object of balancing sugar production in France and in the colonies and the imports of colonial sugar with the consumption needs of France and Algeria."

State Intervention in the Home Market. — Moreover, the State control of the operation of the agreements between French sugar producers tends to become continually more and more strict.

In accordance with a decree-law issued on 25 August 1937 (1) the quotas applicable to French and colonial production are fixed on the suggestion of the vocational organisations by orders of the Minister of Finance, the Minister of Agriculture, the Minister of Commerce and the Minister for the Colonies. The release of all or a part of the sugar stocks built up from excess production may be made compulsory by decree.

A decree-law of 31 August 1937 has further laid down that the orders and decrees contemplated in the Decree of 25 August 1937 shall be issued after compulsory consultation with a committee composed of representatives of the organisations which are parties to the contractual arrangements made with a view to balancing the production and consumption of sugar in France and the colonies.

THE PRICE OF FERTILIZERS.

When the law of 25 January 1937 concerning the mines owned by the State in Alsace was voted, an official assurance was given that the prices of potash would not be increased. Actually the prices of potassium fertilizers remained stable and then, at the beginning of the summer, fell. But in September, the National Committee for the Supervision of Prices, taking into consideration the rise in prices of imported jute, authorised the Alsatian Potash Trading Company to add to the price ruling before 28 June 1937 for potassium fertilizers delivered in sacks, an amount of 75 centimes per sack of 100 kg. A rise also in the prices of organic fertilizers and compounds was authorised in September.

(1) *Journal Officiel*, 26 August 1937.

Import and Transit Prohibitions for Sanitary Reasons.

An order of 28 October 1937 (1) prohibited, for sanitary reasons, the importation and transit of domestic or wild rodents, alive or dead, as well as of their skins, coming directly or indirectly from the U. S. S. R., Bulgaria, Albania, Greece or Turkey.

As a result of the discovery of cases of foot and mouth disease in Algeria and Morocco a ministerial resolution of 22 May 1937 prohibited the importation or transit of live cattle, sheep, goats, and pigs, coming from North Africa. Certain exceptions were made from the month of June. New exceptions have been made recently by orders dated 3, 4, and 5 November 1937. They concern pigs from Algeria and Morocco and cattle from Algeria, Tunis, and Morocco, coming into France by the ports of Marseilles and Bordeaux and going directly to public slaughter-houses or industrial slaughter-houses regularly supervised.

II. — MEASURES AFFECTING AGRICULTURAL ECONOMY IN GENERAL

Agricultural Credit.

A decree of 31 August 1937 (2) concerns agricultural credit. In order to avoid all doubts concerning the nature of agricultural credit institutions it provided that when it has been shown that a mutual agricultural credit society does not strictly observe the provisions of laws or regulations in force, it will be deprived by a decision of the Minister of Agriculture, on the advice of the Minister of Finance, of the fiscal exemptions which the law grants to mutual agricultural credit societies; it will no longer be able to use the title of mutual agricultural credit society and will find itself placed under ordinary company law.

In order to assure a greater stability in the future to agricultural credit operations it disassociates the rate of interest for this credit from the discount rate of the Bank of France, and provides that the rate of interest on agricultural credit shall in future be fixed by order of the Minister of Agriculture and the Minister of Finance, on the advice of the administrative council of the National Agricultural Credit Bank.

It makes permanent the system of loans against pledge established by the Decree of 23 October 1935 which granted to vine-growers new facilities for the financing of their crops.

UNITED KINGDOM

The year 1937 was, broadly speaking, a year of rising industrial prosperity in the United Kingdom. The rate of recovery was not as rapid as in 1936, but there was continued progress and only towards the end of the year were there signs of a possible setback.

(1) *Journal Official*, 1 September, 1937. — (2) *J. O.*, 1 September 1937.

The general index of production (1929 = 100), which had been 105.8 in 1935; 114.8 in the first quarter of 1936; 115.1 in the second quarter; 114.1 in the third quarter, and 123.2 in the fourth quarter, was 122.7 in the first quarter of 1937; 126.1 in the second quarter; and 122.2 in the third quarter.

The total number of unemployed persons fell steadily, month by month, from January to June. It rose somewhat in July, but fell again in August. In September and October it again rose, the rise being quite a sharp one in the latter month.

Both imports and exports were larger in 1937 than in 1936. In the first ten months of 1937 the total value of the imports was £775,190,000 and of the exports £432,870,000, compared with imports valued at £640,550,000 and exports valued at £362,040,000 in the corresponding period of 1936.

Wholesale prices, which had been moving sharply upward since the middle of 1936, continued to rise, except for a slight fall in June, until July, after which they began to decline. In each of the first ten months of 1937 the level of prices was considerably higher than in the corresponding month of 1936. The Board of Trade index numbers of wholesale prices (1929 = 100) for these months are as follows, the figures for 1936 being in brackets: January, 90.1 (80.4); February, 91.0 (80.3); March, 94.0 (80.3); April, 95.4 (80.5); May, 96.9 (80.5); June, 96.8 (81.1); July, 97.6 (82.0); August, 97.5 (83.4); September, 97.4 (84.2); October, 96.8 (85.5).

For agriculture as well as for industry, the year was one of renewed prosperity. Apart from the effects of the numerous measures taken for its encouragement, prices were considerably higher than in 1936. The following are the index numbers of prices of agricultural produce in each of the first ten months of 1937 and, in brackets, the index numbers in the corresponding months of 1936 (corresponding months of 1911-13 = 100): January, 130 (116); February, 129 (118); March, 130 (116); April, 140 (123); May, 133 (115); June, 131 (116); July, 131 (117); August, 133 (119); September, 137 (127); October, 131 (126).

There was no very marked change in agricultural policy in the United Kingdom in 1937. It is true that long-term policies have been put forward and to some extent carried into effect, but, for the most part, they do not differ fundamentally from the emergency policies adopted to overcome the agricultural crisis. Import duties are still imposed on certain classes of agricultural products and are varied from time to time. Import quotas are arranged by voluntary agreement with the exporting countries, or are imposed by Order of the Board of Trade. Of the various marketing schemes put into operation in Great Britain and in Northern Ireland, one—the Pigs Marketing Scheme—has temporarily broken down, but all the others are still being carried on. The system of making deficiency payments to wheat-growers introduced by the Wheat Act of 1932 is still in operation and growers of oats and barley are now receiving similar assistance under the Agriculture Act, 1937. The subsidy given to producers of slaughter cattle under the Cattle Industry (Emergency Provisions) Acts, 1934 to 1936, is being continued under the Livestock Industry Act, 1937. The Milk Acts, 1934 to 1937, are still in force and the long-term proposals put forward only contemplate altering the form of the subsidy given, so as to encourage improvement in the quality of the milk produced. On the other hand, a new principle has been introduced in the Agriculture Act, 1937, one of the main objects of which is to assist farmers to increase the fertility of the soil, while the provisions of the Livestock Industry Act, 1937, for the regulation of livestock markets and of the slaughtering of livestock and for the eradication of diseases of animals are measures for the general improvement of the live-stock industry as distinct from emergency measures.

I. — MEASURES AFFECTING MARKETS AND PRICES

The Livestock Industry Act, 1937.

Assistance to the livestock industry was given under the Cattle Industry (Emergency Provisions) Acts, 1934 to 1936, mainly in the form of a subsidy. These Acts have been superseded by the Livestock Industry Act, 1937, which was passed in July 1937 and contains provisions not only for the continued payment of a subsidy on slaughter cattle, but for the regulation of imports of livestock and meat, and for the regulation of livestock markets and of the slaughtering of livestock.

The Livestock Commission and Advisory Committee. — To assist them in the administration of the Act, the Minister of Agriculture and Fisheries and the Secretary of State for Scotland must appoint a Commission, to be known as the Livestock Commission, consisting of a chairman and not more than eight other members. The Ministers must also appoint a Livestock Advisory Committee, to give advice and assistance to the Livestock Commission in the discharge of its functions. Further, three Sub-committees of the Advisory Committee must be appointed, one for England one for Scotland, and one for Wales.

The Cattle Subsidy. — The primary function of the Livestock Commission is to make and submit to the Ministers a scheme for the payment of a subsidy to producers and, if the scheme is approved by the Ministers, to carry it out. When a scheme has been approved, the Ministers, after consulting the Commission, are to issue regulations, defining the descriptions of animals which may be certified for the purposes of the subsidy, prescribing the minimum weight of any animal or carcase in respect of which a subsidy may be paid, and fixing the length of time prior to the application for a subsidy that an animal imported into the United Kingdom must have been in the Kingdom to be eligible for a subsidy. The Minister may also, by orders, provide for the marking of cattle imported into the United Kingdom.

All subsidy payments are to be made out of the Cattle Fund established under the Cattle Industry (Emergency Provisions) Act, 1934, which becomes the fund for the purposes of the Livestock Industry Act. Into this fund are to be paid, out of moneys provided by Parliament, such sums, not exceeding £5,000,000 in any one financial year, as the Ministers, with the approval of the Treasury, may from time to time determine.

Regulation of Imports of Livestock and Meat. — In order to secure the stability of the livestock and meat market in the United Kingdom, the Board of Trade is empowered to regulate the quantities and descriptions of livestock that may be imported. This authorisation does not, however, include authorisation to regulate imports of bacon and hams. The power of the Board of Trade under the Agricultural Marketing Act, 1933, to regulate imports of agricultural products will cease to be exercisable in relation to livestock or in relation to meat other than bacon.

Livestock Markets. — The Livestock Industry Act prescribes that no premises on which a livestock market was not held during the year ended 30 November 1936 can be used for holding a livestock market unless the premises are approved for the purpose by an order of the Livestock Commission, made with the approval of the Minister of Agriculture or of the Secretary for Scotland, as the case may be.

On the recommendation of the Livestock Commission, the Minister of Agriculture or the Secretary for Scotland may make an order for controlling the holding of livestock markets in an area in the interests of efficiency or of economy. Such an order may require the Commission to pay compensation to any person for any loss

he may suffer by reason of the operation of the order, and may provide for the levy of contributions on owners of market premises of which the occupiers are likely to benefit by the operation of the order and on the salesmen using them.

The Livestock Commission are empowered to make by-laws for regulating the holding and conduct of livestock auctions.

The Slaughtering of Livestock.—The Livestock Commission is also empowered to submit to the Minister of Agriculture or the Secretary for Scotland a scheme for the provision of a central slaughter-house and the Minister may by order confirm the scheme. Not more than three schemes of this kind may, however, be confirmed.

A slaughter-house scheme may direct that any slaughter-house which may be provided on special premises shall be deemed to be the central slaughter-house for the area to which the scheme applies, and may fix or limit the charges which may be made at the central slaughter-house. It may further direct that, within the area, livestock shall not be slaughtered except on premises approved by the Commission.

A slaughter-house scheme may enable any specified local authority to provide the central slaughter-house and to carry it on or arrange for some other person to carry it on. The Act also provides that joint boards may be formed for the purposes of a slaughter-house scheme.

Advances, not exceeding £250,000 in all, may be made from the Exchequer, in connection with the provision or alteration of central slaughter-houses.

Service Schemes.—The Livestock Commission is authorised to submit to the Minister of Agriculture and Fisheries or to the Secretary for Scotland a scheme for one or more of the following purposes: (1) research or education; (2) statistics and information; (3) insurance; (4) advertisement; (5) grading or marking; (6) improvement of breeding; (7) any similar purpose.

The Cattle Subsidy Scheme, Regulations and Order.—No time was lost by the Livestock Commission in preparing a Cattle Subsidy Scheme. The Scheme was approved by the Ministers, who promptly issued the Cattle Subsidy Regulations, 1937, defining the descriptions of eligible animals, and the Cattle Subsidy Payments Order, 1937, prescribing the rates of payment.

The Regulations provided that eligible animals should be divided into two grades, "ordinary" grade and "quality" grade, and that higher rates of subsidy should be payable in respect of quality grade animals than for ordinary grade animals. In addition the rates of payments for home-bred animals of each grade were to be higher than for imported animals of the same grade. Cow-heifers were to be eligible for ordinary subsidy but quality subsidy was to be limited to steers and heifers (1).

The rates of subsidy in respect of animals certified at a Live-weight Centre were fixed by the Cattle Subsidy Payments Order as follows:—

Ordinary grade home-bred animals	5s.	per cwt. live weight
Ordinary grade imported animals	2s. 6d.	per cwt. live weight
Quality grade home-bred animals	7s. 6d.	per cwt. live weight
Quality grade imported animals	5s.	per cwt. live weight

These rates came into force on 1 August 1937.

Total Subsidy Payments.—The total subsidies paid under the Cattle Industry (Emergency Provisions) Acts, 1934 to 1936, and the Livestock Industry Act, 1937, up to October 1937 were £12,090,943 in respect of 5,099,472 animals, the average

(1) A cow-heifer is defined in the Scheme as a female bovine animal which has calved, but which has not grown more than six permanent incisor teeth and has retained at least one calf tooth.

payment per animal being £2 7s. 5d.. These payments included £428,676 for 136,433 animals of quality standard and £424,979 for 213,764 animals of ordinary standard certified under the 1937 Act.

Regulation of Imports.

MUTTON AND LAMB.

The allocations of imports of mutton and lamb from New Zealand and Australia were fixed for 1937 at figures the same as those for 1936, that is, at 3,900,000 cwt. and 1,750,000 cwt. respectively. For Australia, however, the year 1 October 1936 to 30 September 1937 was adopted as the period of allocation in lieu of the calendar year 1937 in order to fit in with the Australian shipping season. Subsequently it was agreed, in view of the improved price position, that New Zealand and Australia should be entitled to ship 110,000 cwt. and 50,000 cwt. respectively in addition to their basic allocations.

Imports from foreign countries were regulated on the same basis as in 1936, that is, they were limited to approximately 65 per cent. of the quantities sent in the Ottawa Standard year, July 1931-June 1932.

BACON AND HAMS.

Imports of bacon and hams are regulated under the Agricultural Marketing Act 1933, with a view to enabling the Agricultural Marketing Act, 1931, to be made fully effective. Later in this Chronicle is mentioned the decision of the Pigs Marketing Board, set up under the Agricultural Marketing Act, 1931, to cancel contracts with producers for the supply of pigs in 1937. Before this decision was taken, however, the quota for imports of bacon and hams from foreign countries had been fixed for the first six weeks of 1937 and no alteration was made in these arrangements, which were subsequently extended. The allocations from 9 to 30 September 1937 were in total 302,560 cwt., from 1 to 14 October, 192,539 cwt., and from 15 October to 31 December 1937, 1,113,653 cwt.; the total of these allocations from 9 September to 31 December 1937 is 1,608,752, and from 1 September to 31 December of the preceding year the total allocation was 1,604,980 cwt.

PROCESSED MILK.

The imports of processed milk are governed by arrangements which the Government has made, after consultation with the United Kingdom manufacturing interests, with the principal foreign supplying countries. These arrangements are made with a view to reducing the exports to the United Kingdom to a level that should enable United Kingdom manufacturers to secure a satisfactory share of the home market. At the same time the foreign exporters and home manufacturers have concluded agreements governing the marketing of the chief descriptions of processed milk.

Subsidies for Wheat, Oats and Barley.

THE WHEAT ACT, 1932.

The provisions of the Wheat Act, 1932, provide for the constitution of a Wheat Fund out of which "deficiency payments" are made to registered wheat growers. This Fund is formed by quota payments that millers and importers of flour must pay

on all deliveries of flour. The quota payments have varied widely since the 1932 Act came into operations. On 27 January 1937 the rate was fixed at 6*d.* per sack, and then on 18 April 1937 it was possible to suspend the payments altogether. On 19 September 1937, however, the quota payment was re-imposed at 6*d.* per sack (2.4*d.* per cwt.).

This reduction of the rate of quota payments reflected the changes in the wheat position, the rise in the price of wheat in particular, which caused the "deficiency payments" to be much lower in the cereal year 1936-37 than in the previous years. The rate at which the payments are made was 17*s.* 1*d.* per quarter in 1934-35, 15*s.* 1*d.* (approximately) in 1935-36, and in 1936-37 5*s.* 1*d.* (approximately).

In the year 1936-37 for the first time the "anticipated supply" was not reached and each grower will receive full "deficiency payment" for every cwt. of wheat sold.

AMENDMENTS TO THE WHEAT ACT.

Two important amendments to the Wheat Act, 1932, were introduced by the Agriculture Act, passed in July 1937. The first of these raises the quantity of home-grown millable wheat in respect of which deficiency payments may be made at the full rate from 27,000,000 cwt. to 36,000,000 cwt. The second alters the maximum quantity of home-grown millable wheat that the Flour Millers' Corporation may be required to buy in any cereal year from 12 $\frac{1}{2}$ per cent. of the anticipated supply of that year to the definite figure of 4,000,000 cwt.

SUBSIDIES FOR OATS AND BARLEY.

The Agriculture Act, 1937, also provides for the payment, in 1937 or in any of the following four years, of subsidies to farmers who have sown land to oats or barley, in the event that the United Kingdom price per cwt. for home-grown oats falls short of 8*s.* by 5*d.* or more. The subsidy, if payable, will amount to six times the difference between the United Kingdom price of oats and 8*s.* or to £1 (whichever is less) for each acre of land that was under oats and barley on 4 June. It will be noted that while it is only the price of oats that is taken into consideration in determining the rate of payment, the subsidy will be paid in respect of land under barley as well as land under oats.

No subsidy will be payable if the land under oats or barley was less than one acre. Land under mixed crops may be treated as reduced for the calculation of the subsidy, and land negligently cultivated may be disregarded or deemed to be reduced. If the farmer's land includes any land under wheat, he cannot receive subsidy payments both under the Agriculture Act, 1937, and under the Wheat Act, 1932, but must elect of which act he will take advantage.

If, in 1938 or any of the following three years, the total acreage of land under oats and barley on which the subsidy is payable exceeds eleven-tenths of the corresponding acreage in 1937, the rate of payment will be proportionately reduced.

The Government Milk Policy.

The Milk Acts, 1934 and 1936, under which Exchequer advances are made in respect of manufacturing milk and of schemes for increasing the demand for milk (including the Milk-in-Schools Scheme) were extended for a further year, that is, to September 1938, by the Milk (Amendment) Act, 1937. The contingent liability of the Milk Marketing Boards to repay Exchequer advances was extended to September 1940.

The main change introduced by the 1937 Act concerns the advances made by the Exchequer to the Boards to bring the prices of milk used for the manufacture of butter and cheese respectively up to the minimum guaranteed by the Exchequer of 5*d.* per gallon in the summer months and 6*d.* per gallon in the winter months, for milk used for both purposes. From 1 August 1937 the "cheese-milk price" is to be such a sum as the Ministry of Agriculture and the Secretary of State for Scotland may certify (with the approval of the Treasury) as the value per gallon of the greater part of the milk sold wholesale in Great Britain, during the month, for manufacture into cheese. A similar price, calculated on the basis of the value per gallon of the greater part of the milk sold wholesale in Great Britain, during the month, for manufacture into butter, is to be used as the price of milk sold for butter manufacture. These two prices are to be used as the basis for calculating the difference between the actual price and the guaranteed price to arrive at the amount of Exchequer advances. Previously these advances were based on one price, the cheese-milk price, which was arrived at by adding 1¾*d.* to the average price per lb. of New Zealand and Canadian finest white cheese sold wholesale in Great Britain during the immediately preceding month.

At the same time that the Milk Act of 1934 was extended, the Government put forward proposals for a long-term milk policy. These were contained in a White Paper on Milk Policy issued on 30 July 1937. They included proposals for improving the quality of the milk produced and for increasing the returns on milk sold for manufacturing purposes.

Marketing Schemes.

THE MILK MARKETING SCHEME (ENGLAND AND WALES).

The contracts made between producers and wholesale dealers for the year 1936-37 expired on 30 September 1937. During the course of the year there was a tendency for pool prices payable to producers to rise slightly.

This was due mainly to a rise in the average realisation price of milk sold for manufacturing purposes, and to the increase in the proportion which the sale of milk for liquid consumption, which yields the highest return to the pools, bears to total milk sales.

At the same time, however, costs of milk production have been rising, and the rise in the cost of feeding stuffs alone is said to represent an increase of about 3/4*d.* per gallon in the costs of production.

The increase in the cost of production had been taken into consideration in fixing the contract prices for the year 1937-38, which were established by the Milk Marketing Board in agreement, after negotiations, with the Central Milk Distributive Committee. Both wholesale contract prices for milk for liquid consumption and the appropriate minimum retail prices are higher than in 1936-37.

Further the prices of all milk used for manufacture is increased.

The application of the prices for milk sold for manufacturing purposes is moreover limited. For the Board has reached an agreement with the manufacturers to the effect that they will be entitled to claim manufacturing prices on an amount equal to only 50 per cent. of the butter manufactured in the winter of 1935-36, 75 per cent. of the cheese manufactured then, and 75 per cent. of condensed milk exported.

The grant payable to farmhouse cheese makers is the same as last year; the output of farmhouse cheese is likely to be adversely affected therefore by the rise in pool

prices which will decrease the profitability of the use of milk for this production, relatively to that of sales of milk for liquid consumption.

This year's contract takes account of the sale of Tuberculin Tested milk coming for the first time under the Board's supervision as a result of the amendment of the Milk Marketing Scheme embodied in an Order issued by the Minister of Agriculture on 3 August 1937 (1). The addition of Tuberculin Tested milk will bring under the Scheme a further 30,000,000 gallons per year approximately. The producer of Tuberculin Tested milk will obtain at least 4d. per gallon more for milk sold on the terms of the Tuberculin Tested milk contract than for milk sold on the terms of the ordinary contract.

Retail prices of Tuberculin Tested milk are to be fixed by an Advisory Committee composed of two representatives of the Board, two of the Tuberculin Tested Milk Producers' Association and an independent chairman. Producers of Tuberculin Tested milk who hold a Certificate of Attestation under the Attested Herds Scheme will be entitled to the additional bonus of 1d. per gallon.

The Milk Marketing Board has continued to extend its factory operations. In September it acquired the retail business of the Norfolk Dairy Farmers' Association and built a milk factory near Norwich capable of handling 20,000 gallons daily. The Board by entering into retail trade will be in a position to have direct evidence of the cost of distribution.

Producer-retailer levies are to be at a flat rate which is fixed until 31 July 1938 and gives an advantage to Tuberculin Tested Milk.

THE SCOTTISH MILK MARKETING SCHEME.

The 1937-38 contract terms declared by the Scottish Milk Marketing Scheme, which operates in the part of Scotland lying south of the Grampian Hills, show an increase both in retail prices and in standard, or wholesale, prices.

From September 1937 producers of Tuberculin Tested milk have the right to a bonus from the Marketing Board in respect of milk of that quality sold by them to or through the agency of the Board.

An Order issued by the Secretary of State for Scotland brought into operation from 1 August 1937 amendments to the Scheme previously approved by both Houses of Parliament. From that date the contribution to the Board on "category" sales (that is, sales by producer-retailers and producer-wholesalers) will be at the rate of 1½d. per gallon; the contribution on certified milk sold as such will remain at 1/7d. per gallon.

THE PIGS AND BACON MARKETING SCHEMES.

There were in 1937 no contracts for the supply of pigs operative under the scheme, since such contracts as had been negotiated were declared void by the Pigs Marketing Board because the supply of pigs provided for by these contracts was only 1,866,000, whereas 2,200,000 was considered necessary for the economical working of the bacon factories. The reason for this breakdown of the Scheme seems to have been a feeling, particularly among smaller producers, that they could get better prices by selling in the open market than by entering into contracts with the Board, and more specifically that the price offered by the Board for contract (which was 12s. a score with 1d. per

(1) The Milk Marketing Scheme (Amendment) (No. 2) Order, dated 3 August 1937.

score for each complete 3d. a cwt. by which the ascertained price of the feeding-stuffs ration exceeded 7s. 6d. up to a limit of 9s.) was satisfactory only so long as the price of the standard ration did not exceed 7s. 6d. And at the time when the 1937 contracts were being signed feeding-stuff prices were rising rapidly.

From 1 January to 15 February 1937 the sale of pigs was not regulated, but the Pigs Marketing Board made a "determination" which became operative on the latter date. It applies to every agreement made by a registered producer with a registered bacon-curer for the sale of bacon pigs having a dead-weight of from 7 score to 10 score 10 lb. The price to be paid is left to be agreed between producer and curer, but every agreement must fix the price per score dead-weight according to the class of the pig, and must also provide that every pig sold under it shall be classed according to dead-weight and graded after slaughter in the manner laid down by the 1937 contract which was declared void. The agreed price is also to be subject to additions or deductions on the same scale as was prescribed in that contract. The curer shall deduct 6d. per pig from the agreed price for insurance against loss through damage to pigs during transit or by disease. A further deduction of 6d. per pig is to be remitted to the Pigs Marketing Board in respect of services rendered to the producer.

II. — MEASURES AFFECTING AGRICULTURAL ECONOMY IN GENERAL

The Agriculture Act, 1937.

An important Act, containing provisions of various kinds for the encouragement of agriculture, was passed in July under the title of the Agriculture Act, 1937.

We have already seen that this Act amends the Wheat Act, 1932, and provides for the payment of subsidies in respect of oats and barley. Other objects of the Act were to assist farmers to increase the fertility of their land; to make further grants for land drainage, and to promote the eradication of diseases of animals and poultry.

Land Fertility. — The Minister of Agriculture and Fisheries, the Secretary of State for Scotland and the Minister of Agriculture of Northern Ireland are authorised by the Agriculture Act to make, with the approval of the Treasury, a Land Fertility Scheme, under which they make contributions to farmers towards the cost of acquiring and transporting lime or basic slag for application to their land. Contributions will be paid out of moneys provided by Parliament; they must not exceed one half the cost in the case of lime or one quarter in the case of basic slag, nor must any contribution be paid on quantities of less than two tons.

The payment of contributions is limited to the period ending 31 July 1940, but this period may be extended for two successive periods of one year each.

To assist them in the administration of the Scheme, the Ministers must appoint a Committee, to be called the Land Fertility Committee, consisting of a chairman and not more than four other members.

Grants for Land Drainage. — The Minister of Agriculture and Fisheries is empowered by the Agriculture Act to make grants to drainage authorities (with certain exceptions) towards expenditure incurred by them in carrying out drainage schemes. The making of such grants is limited to the period ending 31 July 1940, but this period may be extended for two successive periods of one year each.

The Department of Agriculture for Scotland is empowered to make grants to owners or occupiers of agricultural land in Scotland in respect of expenditure on the drainage of such land.

The part of the Agriculture Act relating to land drainage does not apply to Northern Ireland.

Eradication of the Diseases of Animals. — The Agriculture Act provides for the establishment of a national service of veterinary inspectors and gives considerably extended powers to the Minister of Agriculture for the eradication of the diseases of animals and of poultry. This part of the Act also does not apply to Northern Ireland.

The Land Fertility Scheme. — The Ministers promptly put forward a Land Fertility Scheme and on 3 August the Land Fertility Committee was appointed to administer it. The Committee acted with equal promptitude and set up the necessary machinery in time for operations to start on 6 September. The preparatory work involved the approval of some 300 producers and 2,500 distributors of lime and basic slag in the United Kingdom, as well as sending particulars of the Scheme to more than half a million occupiers of agricultural land. Farmers who intend to apply to the contribution must obtain their supplies of lime or basic slag from an approved supplier. The Act fixes two tons as the smallest quantity on which a contribution will be made, but special provision is made in the Scheme to enable associations of farmers, allotment holders or small holders, or similar associations, which purchase lime or basic slag in bulk for distribution to their members, to be treated as if they were occupiers of agricultural land.



MONTHLY BULLETIN

OF

AGRICULTURAL ECONOMICS AND SOCIOLOGY

1938

No. 2

THE ECONOMIC OR SOCIAL INCOME OF AGRICULTURE AND THE VARIATIONS THEREIN FROM 1932-33 TO 1933-34

SUMMARY: Table of the variations, from 1932-33 to 1933-34, in the social income, in the gross return and in the farming expenses of farms mainly engaged in crop production in the countries mentioned below. — The economic or social income in 1933-34 in Germany, in Switzerland, in Austria, in Sweden, in Soissonnais (France), in Overijssel (Netherlands), in Hungary, in Romania.

In an article which appeared in the January number of the *Monthly Bulletin of Agricultural Economics and Sociology*, taking as basis of the enquiry the social income, a study was made of farm accountancy results in 1933-34 of the farms mainly engaged in live stock production over a large part of Europe: in this article we shall deal with the social income in 1933-34 of the farms of a certain number of European countries mainly engaged in crop production.

We will deal first with Germany.

Germany.

From 1931-32 to 1932-33, the social income advanced on the wheat-growing farms of the West and South of Germany of 20 to 100 ha. and over 100 ha. in extent, as also on the wheat-growing farms of the East of over 200 ha. in extent. The social income declined, on the other hand, on the wheat-growing farms of the West and South of 5 to 20 ha. in extent and on the farms of the East of 5 to 20 and of 50 to 200 ha. in extent, as also on the sugar-beet farms of the West and of the East of all size groups. The causes of these fluctuations are to be found in the variations of the gross return.

From 1932-33 to 1933-34, the social income of all groups of farms without exception showed a rise of about 10 per cent.: the rise in the gross return assumed the character of a general phenomenon.

Effective support was given to agriculture by the Government. The Law of 13 September 1933 laid down the bases for the regulation of the market in cereals, oils, fats, milk, milk products, and of the majority of other agricultural products. The purpose of this legislation was to introduce equi-

TABLE I. — *The Social Income, the Gross Return, and the Farm Expenses and concerned main*

(Social income

GROUP	Number of farms	Average area in hectares	Animal production				Vegetable products	
			Cattle		Pigs	Other animals		
			Breeding for slaughter and other purposes	Milk and dairy products				
				1	2	3	4	5
Germany:								
Cereal producing farms:								
West and South:								
5 to 20 hectares . . .	1932-33	226	14	12.01	18.32	16.52	3.90	40.24
	1933-34	205	14	12.31	21.62	19.52	3.60	45.34
20 to 100 hectares . .	1932-33	631	44	8.46	22.05	10.57	2.42	61.33
	1933-34	612	45	8.46	25.08	13.29	2.11	64.95
Over 100 hectares . .	1932-33	117	174	5.13	20.19	8.33	3.21	86.86
	1933-34	118	174	6.09	22.76	10.58	2.88	95.83
East:								
5 to 20 hectares . . .	1932-33	657	26	7.64	11.27	14.18	2.18	30.91
	1933-34	687	27	8	14.18	17.82	2.18	33.45
20 to 100 hectares . .	1932-33	354	100	6.55	16.16	10.04	1.75	61.57
	1933-34	392	101	7.42	19.65	11.79	0.87	67.69
Over 100 hectares . .	1932-33	383	403	5.13	13.25	9.40	3.42	77.78
	1933-34	276	388	5.98	16.67	11.54	2.99	85.90
Sugar beet farms:								
West and South:								
5 to 20 hectares . . .	1932-33	64	15	6.62	16.67	7.99	3.20	71
	1933-34	62	15	7.99	18.72	10.50	2.74	79
20 to 100 hectares . .	1932-33	231	51	5.84	20.33	8.41	1.87	82.93
	1933-34	203	46	5.37	22.90	9.11	0.94	95.79
Over 100 hectares . .	1932-33	99	184	3.03	16.79	5.36	3.03	97.90
	1933-34	89	178	3.03	17.48	4.90	3.03	112.35
East:								
5 to 50 hectares . . .	1932-33	22	32	8.71	18.90	12.19	1.49	49.25
	1933-34	16	35	8.46	18.41	14.43	0.99	62.93
50 to 200 hectares . .	1932-33	67	125	6.59	17.31	6.87	0.82	83.24
	1933-34	67	132	6.87	20.06	7.69	0.27	98.35
Over 200 hectares . .	1932-33	68	332	5.81	14.24	6.10	2.62	85.76
	1933-34	61	324	6.10	15.99	6.98	0.87	101.17
Switzerland:								
Farms with improved								
3 year rotation. . . .	1932-33	92	12.70	21.23	41.66	9.41	5.65	37.36
	1933-34	79	12.07	24.46	42.60	11.82	5.24	36.69
Austria:								
Arable stock farms								
with alpine pasture.	1932-33	22	21.54	16.53	42.34	23.15	6.88	22.75
	1933-34	12	29.37	17.07	24.87	13.65	4.88	8.51
Arable stock farms								
without alpine pas- ture	1932-33	277	27.47	13.53	25.08	31.54	5.86	26.09
	1933-34	281	27.66	15.31	20.52	27.53	6.17	20.62
Farms growing cereals								
	1932-33	145	18.95	11.61	24.24	29.13	5.61	49.64
	1933-34	160	18.13	13.17	24.65	32.89	5.65	48.37

for the year 1933-34 for Farms situated in various European Countries
with Vegetable Production.

1928-29 = 100).

Total gross return	Working costs		Social income								Social income 1928-29 in national currency
	Seeds, fodder, fertilisers	Other expenses	Social income (total)	Income going to third persons				Operator's income			
				Taxes	Interest on debts	Wages of hired labour	Total	Remun- eration of family labour	Family capital return	Total	
7	8	9	10	11	12	13	14	15	16	17	18
130.03	20.42	37.24	72.37	6 —	9.01	19.22	34.23	48.05	9.91	38.14	(333 —)
146.54	22.22	36.64	87.68	4.80	8.71	19.82	33.33	48.35	6 —	54.35	—
133.53	24.77	34.44	74.32	7.55	10.58	40.18	58.31	17.22	1.21	16.01	(331 —)
143.20	24.47	35.04	83.69	5.74	11.18	39.58	56.50	17.22	9.97	27.19	—
146.80	27.88	36.22	82.70	7.69	16.03	54.49	78.21	6.09	1.60	4.49	(312 —)
159.61	28.84	38.14	92.63	5.77	12.50	54.81	73.08	5.77	13.78	19.55	—
107.27	12.73	28 —	66.54	4.36	15.64	23.27	43.27	35.64	12.37	23.27	(275 —)
118.18	16.36	29.82	72 —	2.91	15.27	26.18	44.36	36 —	8.36	27.64	—
126.64	22.27	34.93	69.44	6.11	20.09	47.60	73.80	10.92	15.28	4.36	(229 —)
141.48	25.33	35.80	80.35	4.37	18.34	50.22	72.93	11.35	3.93	7.42	—
137.18	27.78	33.76	75.64	6.84	21.36	58.12	86.32	3.42	14.10	10.68	(234 —)
152.99	29.06	37.18	86.75	5.13	16.67	61.11	82.91	3.42	0.42	3.84	—
131.05	22.15	32.42	76.48	7.76	11.87	20.32	39.95	27.85	8.68	36.53	(438 —)
143.61	24.43	34.02	85.16	5.71	10.04	22.83	38.58	26.48	20.10	46.58	—
139.95	27.80	31.78	80.37	8.41	12.38	40.89	61.68	10.51	8.18	18.69	(428 —)
154.44	29.21	34.58	90.65	6.07	10.05	41.82	57.94	10.05	22.66	32.71	—
142.89	27.51	31 —	84.38	8.63	15.15	48.25	72.03	3.73	8.62	12.35	(429 —)
156.64	27.97	32.87	95.80	6.06	13.75	49.18	68.99	3.73	23.08	26.81	—
111.44	19.90	32.09	59.45	5.72	9.95	29.60	45.27	21.89	7.71	14.18	(402 —)
128.11	27.61	35.82	64.68	3.73	11.19	34.83	49.75	16.42	1.49	14.93	—
134.06	26.92	32.42	74.72	6.32	16.21	47.52	70.05	4.67	—	4.67	(364 —)
152.20	31.32	34.34	86.54	4.95	13.19	49.45	67.59	4.67	14.28	18.95	—
134.01	25 —	32.56	76.45	6.98	15.99	52.90	75.87	2.03	1.45	0.58	(344 —)
152.91	29.65	33.44	89.82	5.52	15.40	54.94	75.86	2.33	11.63	13.96	—
135.33	18.14	50.40	66.79	3.90	43.14	47.04	19.75	19.75	—	—	(744.12)
142.45	17.34	47.84	77.27	4.16	43.28	47.44	29.83	29.83	—	—	—
128.18	19.26	32.62	76.30	4.69	6.61	25.51	36.81	37.64	1.85	39.49	(388.53)
79.48	6.82	19.28	53.38	3.50	5.66	17.17	26.33	25.78	1.27	27.05	—
115.91	14.81	29.58	71.52	5.26	4.85	29.67	39.78	28.53	3.21	31.74	(373.28)
102.24	13.26	25.95	63.03	5.22	4.91	26.55	36.68	25.80	0.55	26.35	—
133.15	19.20	31.63	82.32	6.41	5.42	26.90	38.73	34.32	9.27	43.59	(473 —)
137.58	20.66	30.82	86.10	7.49	4.44	27.07	39 —	34.13	12.97	47.10	—

GROUP	Number of farms	Average area in hectares	Animal production				Vegetable products	Other branches	
			Cattle		Pigs	Other animals			
			Breeding for slaughter and other purposes	Milk and dairy products					
									1
Sweden:									
Centre:									
Farms under 50 hect- ares	1932-33	206	13.19	13.22	50.12	20.06	17.09	27.39	12.96
	1933-34	249	14.45	15.02	58.63	18.32	17.03	30.29	12.12
Farms over 50 hect- ares	1932-33	78	190.42	13.04	55.92	7.53	10.58	50.87	11.68
	1933-34	71	199.69	10.66	58.78	6.02	11.57	51.58	12.25
South:									
Farms under 50 hect- ares	1932-33	35	29.48	5.20	38.91	18.61	6.45	91.42	4.80
	1933-34	41	30.41	6.23	42.16	16.10	6.60	86.18	5.29
Farms over 50 hect- ares	1932-33	45	200.82	9.79	44.80	13.70	4.53	80.61	5.57
	1933-34	55	174.40	9.54	53.98	14.52	3.22	82.59	5.40
Soissonais (France):									
Farms growing crops for industrial use. .	1932-33	75	290 —	3.27	2.73	1.26	3.95	161.82	5.38
	1933-34	99	290 —	2.96	4.05	0.92	4.13	164.95	8.42
Overijssel (Netherlands):									
Sandy, peaty, districts	1932-33	71	15.12	3.85	32.02	22.20	8.45	4.66	—
	1933-34	77	13.75	21.17	35.08	24.12	7.97	8.98	—
Marshy districts . . .	1932-33	11	25.73	4.67	7.40	5.08	5.64	116.51	—
	1933-34	14	24.21	9.10	7.47	4.32	4.42	148.74	—
Hungary:									
Small Transdanubian farms:									
Farms in all parts of the country: small .	1931-32	60	14.21	6.56	9.11	13.63	9.68	41.04	9.76
	1932-33	24	20.55	5.19	7.89	22.84	7.67	50.24	10.50
	1933-34	64	22.74	5.05	7.57	13.58	7.60	37.81	6.72
Farms in all parts of the country: medium	1932-33	75	304.95	3.27	8.09	8.29	2.55	49.70	10.07
	1933-34	83	297.05	4.68	6.45	12.83	1.98	41.78	8.65
Farms in all parts of the country: large .	1932-33	50	2003.43	4.47	9.37	10.33	2.09	53.88	10.14
	1933-34	54	1760.92	3.96	7.25	12.70	2.60	46.59	7.70
Romania:									
Farms in all parts of the country	1931-32	55	8.92	6.52	13.25	11.32	12.97	84.90	22.70
Arable farms in Mun- tenia and Altenia. .	1932-33	68	7.67	3.99	4.82	10.35	15.92	88.09	39.10
	1933-34	55	8.02	1.62	6.83	11.57	13.63	91.96	22.95
Arable farms in Mol- davia	1932-33	17	11.29	4.31	3.75	4.94	8.29	38.71	9.64
	1933-34	15	9.58	2.72	7.27	8.22	9.36	64.98	15.21
Arable farms in Buca- rest	1932-33	10	6.65	16.83	5.37	11.81	21.21	178.27	32.15
	1933-34	11	7.80	2.69	7.94	5.14	11.69	89.82	20.10

(1) 1929-30. — (2) 1929-30, peasant farms. — (3) 1930-31.

Total gross return	Working costs		Social income								Social income 1928-29 in national currency
			Social income (total)	Income going to third persons				Operator's income			
	Seeds, fodder, fertilisers	Other expenses		Taxes	Interest on debts	Wages of hired labour	Total	Remuneration of family labour	Family capital return	Total	
7	8	9	10	11	12	13	14	15	16	17	18
140.84	30.10	30.25	80.49	—	—	17.32	17.32	55.97	7.20	63.17	(224.27)
151.41	33.19	29.84	88.38	—	—	19.02	19.02	52.97	16.39	69.36	—
149.62	27.02	42.95	79.65	—	—	68.52	68.52	2.74	8.39	11.13	(197 —)
150.86	27.95	42.10	80.81	—	—	66.98	66.98	2.67	11.16	13.83	—
165.39	44.17	30.21	91.01	—	—	41.34	41.34	13.17	36.50	49.67	(354 —)
162.56	41.31	29.03	92.22	—	—	38.36	38.36	14.09	39.77	53.86	—
159 —	35.02	34.10	89.88	—	—	59.66	59.66	3.16	27.06	30.22	(262 —)
169.31	37.53	32.89	98.89	—	—	58.54	58.54	3.84	36.51	40.35	—
178.41	39.69	41.88	96.84	3.52	—	50.99	54.51	11.76	30.57	42.33	(1701.06)
185.43	41.28	42.60	101.55	3.41	—	43.64	47.05	11.76	42.74	54.50	—
71.18	32.55	9.37	29.26	2.17	1.68	18.88	22.73	39.20	32.67	6.53	(232.42)
97.32	36.96	9.21	51.15	1.99	2.14	15.92	20.05	35.70	4.60	31.10	—
139.30	36.93	8.31	94.06	2.70	21.15	42.32	66.17	31.22	3.33	27.89	(183.57)
174.05	38.51	9.40	126.14	2.74	22.58	39.88	65.20	25.49	35.45	60.94	—
89.78	5.92	33.05	50.81	8.62	6.61	13.58	28.81	44.87	22.87	22 —	(254.14)
104.39	12.27	35.35	50.77	10.73	4.67	22.11	37.51	30.38	11.12	19.26	—
78.33	3.07	22.06	53.20	8.67	2.86	15.18	26.71	22.18	4.31	26.49	—
81.97	7.87	31.34	42.76	7.09	5.50	33.85	46.44	2.71	6.39	3.68	—
70.37	4.75	25.02	46.60	7.45	5.70	28.31	41.46	2.69	2.45	5.14	—
90.28	10.73	27.92	51.63	7 —	3.71	39.04	49.75	0.42	1.46	1.88	—
80.86	6.78	24.58	49.50	7.05	5.32	31.98	44.35	0.72	4.43	5.15	—
151.66	6.55	41.35	103.76	7.40	5.48	9.93	22.81	31.09	49.86	80.95	(2531.60)
162.27	1.42	32.31	128.54	5.57	1.74	12.32	19.63	24.57	84.34	108.91	—
148.56	2.73	29.62	116.21	3.91	2.97	3.59	10.47	26.31	79.43	105.74	—
69.64	0.87	15.41	53.36	2.33	1.22	1.98	5.53	16.87	30.96	47.83	—
107.76	0.99	15.13	91.64	2.77	0.15	8.14	11.06	26.66	53.92	80.58	—
265.64	4.26	39.62	221.76	19.16	26.47	24.29	69.92	30.89	120.95	151.84	—
137.38	3.28	21.52	112.58	3.79	1.26	1.75	6.80	22.99	82.79	105.78	—

brum between supply and demand by means of fixed prices and a basic price; these prices were to be remunerative for the family farmer and reasonable from the standpoint of the consumer. The prices of cereals for 1933-34 were fixed by Order of 29 September 1933. The height of prices varied according to the months of the year and the regions. The Law of 27 June 1934 dealt with the organisation of the cereals market: it received the name of the Cereals Base Law. Finally an Order of 14 July 1934 regulated the passage of cereals and of derived products from the grower or producer to the consumer. The price index:

of rye	was 95 in 1933-34 as compared with	97 in 1932-33.
of wheat	" 92 "	" 99 "
of malting barley	" 96 "	" 100 "
of oats	" 86 "	" 78 "
of table potatoes	" 75 "	" 65 "

Live stock production increased in 1933-34 in all the regions and on all size-groups of farms; the exceptions being: the farms of 20 to 100 ha. of the West and of 5 to 50 ha. of the East growing sugar beet, which showed an

Gross Return in Volume per Hectare.

(Quantities sold).

	Cattle (Kg. live weight)		Milk (Kg.)		Pigs (Kg. live weight)		Cereals (quintals)			Potatoes (quintals)		
	1932-1933	1933-1934	1932-1933	1933-1934	1932-1933	1933-1934	1932-1933	1933-1934	(+) (-) increase decrease	1932-1933	1933-1934	(+) (-) increase decrease
									%			%
(a) Cereal-growing farms:												
West and South:												
5 to 20 ha. . .	62	63	441	512	71	76	3.75	7.05	+ 88	6.40	3.95	- 38
20 to 100 ha. . .	43	43	527	590	45	52	3.75	9.96	+ 166	9.45	3.29	- 65
Over 100 ha. . .	25	29	455	505	34	39	4.50	13.43	+ 198	12.50	4.60	- 63
East:												
5 to 50 ha. . .	33	34	224	277	50	58	1.50	4.39	+ 193	4.08	1.32	- 68
50 to 200 ha. . .	23	26	267	320	30	32	4.12	7.24	+ 76	6.77	4.28	- 36
Over 200 ha. . .	19	22	224	277	28	32	5.24	9.03	+ 72	8.54	5.92	- 31
(b) Sugar-beet farms:												
West and South:												
5 to 20 ha. . .	45	54	527	583	45	54	10.55	11.51	+ 9	6.74	5.59	- 17
20 to 100 ha. . .	39	36	629	696	46	40	12.68	13.86	+ 9	5.62	5.26	- 6
Over 100 ha. . .	20	20	520	533	30	25	15.30	16.65	+ 9	6.37	5.26	- 17
East:												
5 to 50 ha. . .	54	53	549	526	63	68	7.01	7.98	+ 14	2.62	3.62	+ 38
50 to 200 ha. . .	37	39	455	519	32	33	10.30	11.45	+ 11	7.12	5.92	- 17
Over 200 ha. . .	31	32	354	391	27	28	10.55	11.57	+ 0.2	4.87	7.57	+ 55

increase in cattle numbers less than that of 1932-33; farms of 5 to 50 ha. of the East growing sugar-beet and producing smaller quantities of milk; farms of over 100 ha. of the West growing sugar-beet on which the pig production was lower than in 1932-33.

The family farmers of the Reich sold in 1933-34 larger quantities of cereals than in the previous year; the tenants of farms of 20 to 100 ha. and of over 100 of the West and South and of 5 to 50 ha. of the East growing cereals in each case sold even three times as much as in 1932-33. The sales of potatoes, except on the farms of 5 to 50 ha. and of over 200 ha. of the East where sugar-beet is grown, were much smaller than in 1932-33.

The gross returns, in marks, of the animal and crop production are thus higher than in 1932-33, the former on account of the rise in prices and the increase in production, the latter on account of the larger sales of cereals. The farming expenses somewhat advanced. The social income of all the groups of farms increased by about 10 per cent., as already stated at the beginning of these notes on Germany. The taxes, the interest charges on debts, the wages of hired labour were reduced; the return on the family capital and the operator's income showed decided advance, except on the wheat-growing farms of 5 to 50 ha. of the East where the interest on debts wages of labour were higher than the figure of 1932-33.

Switzerland.

The farms which have retained the system called "the improved three-course rotation" registered in 1932-33 a decrease in the social income due to the decline of prices of milk and of pigs on the one hand, and on the other to the increase of expenditure caused by amortisation payments.

The situation improved in 1933-34. The prices of pigs advanced by about 10 per cent.; milk production increased, balancing the fall in milk prices:

Gross Return in Volume per Hectare.
(Quantities Sold and Delivered to the Farm Household).

Cattle kg. of live weight		Milk kg.		Pigs kg. of live weight		Cereals quintals (1)		Potatoes quintals	
1932-33	1933-34	1932-33	1933-34	1932-33	1933-34	1932-33	1933-34	1932-33	1933-34
102	153	1,442	1,573	55	63	2.15	2.77	5.50	5.08

(1) Expressed in wheat.

It was not only the production of milk that increased; the increase in cattle and in pigs, the sales of cereals and of potatoes are much higher than the figures of 1932-33. On the other hand, expenses fell by 3 per cent. The result is as follows: rise of the gross return by 8 per cent. and of the social

income by 11 per cent. The net return in value and the operator's income both rise by 10 per cent. The interest obtained on the assets, which had fallen below zero in 1932-33, advanced to 0.80 francs per 100 francs of invested capital.

Austria.

Prices of agricultural products fell in 1933-34, with the exception of wheat prices. On the farms that did not increase the volume of their production, *viz.*, the mixed farms without alpland and the mixed farms with alpland, the gross return showed a decline. In return, the gross return of the wheat-growing farms exceeded by 4 per cent. the figure of 1932-33, since, with a very heavy cereal crop, these farms yielded much more milk, beef and pigmeat than in the previous year, as appears from the following table:

Gross Return in Volume per Hectare.
(Quantities Sold and Delivered to the Farm Household).

	Cattle kg. of dead weight		Milk kg		Pigs kg. of dead weight		Cereals quintals	
	1932-33	1933-34	1932-33	1933-34	1932-33	1933-34	1932-33	1933-34
Mixed farms with alpland	26	29	499	317	39	24	0.79	0.97
Mixed farms without alpland	20	25	284	251	51	47	1.43	1.68
Farms growing cereals.	22	27	347	382	59	72	3.90	4.66

The farming expenses decreased on the mixed farms with and without alpland—the farmers were able to reduce their purchases of feeds as they had not given so much attention to milk production and to pig fattening—but the decrease was not sufficient to maintain the social income at the level which it occupied in the preceding year. The return on the family capital and the operator's income were also less high than in 1932-33, although the share of the social income passing to third parties had diminished.

Wheat-growing farms did not reduce farming expenses; the social income showed a degree of advance similar to that of the gross return, and it was the family farmer, whose income is 4 per cent. higher than he had obtained in 1932-33, who benefits by this favourable situation. Invested capital brought him in 2.62 per cent. interest instead of 2.24 per cent. in 1932-33.

Sweden.

On the farms of Upper and Lower Norrland, regions of grassland and stock breeding, the gross return and the economic social income were lower in 1933-1934 than in 1932-33. The reason for this phenomenon is to be found in the

lowering of the milk production and of the crop production, since on the other hand the prices of animal products, with the exception of pig prices, rose in 1933-34 in Sweden.

In Central and in Southern Sweden, on the contrary, gross return and economic income advanced in 1933-34. Although not so abundant as in 1932-33, the quantities harvested in 1933-34 were very large:

Quantities Harvested, in Quintals per Hectare.

	Wheat and rye		Other cereals		Sugar-beet	
	1932-33	1933-34	1932-33	1933-34	1932-33	1933-34
Centre, farms of less than 50 ha.	23.2	24.5	21.0	21.2	—	—
Centre, farms over 50 ha.	23.9	25.2	21.0	18.3	—	—
South, farms less than 50 ha.	28.8	32.1	28.8	29.7	405.8	391.9
South, farms, of over 50 ha.	30.5	29.7	29.8	28.7	389.1	369.8

The following statement shows the extent of the increase in live stock and the quantities of milk and of cereals which the farms have been able to place on sale:

Gross Return, in Volume per Hectare.

(Quantities Sold and Delivered to the Farm Household)

	Cattle (kg. of live weight)		Milk kg.		Pigs kg. of live weight		Cereals q.	
	1932-33	1933-34	1932-33	1933-34	1932-33	1933-34	1932-33	1933-34
Centre, farms less than 50 ha.	72	84	597	626	78	79	5.55	3.93
Centre, farms over 50 ha.	69	53	551	552	22	23	6.37	6.28
South, farms less than 50 ha.	50	55	680	711	101	110	10.80	10.13
South, farms over 50 ha.	69	63	587	674	55	73	10.28	9.57

The increase in cattle returns (except on the farms of over 50 ha. of the Centre and South), and the increase in pigs and in milk production on all groups of farms were marked in 1933-34. Somewhat less quantity of cereals was sold but the prices of barley and oats advanced. Prices of sugar-beet were also higher than those received by growers in 1932-33. If pig prices had declined by 20 per cent., the increase of the gross return in value in 1933-34 of the farms of the Centre and of those of the South of over 50 ha.

would have assumed still larger proportions; and the gross return of the farms of the South of less than 50 ha. would not have decreased. All the four groups of farms, however, showed in 1933-34 a social or economic income higher than that of the previous year, because the farming expenses did not increase, or even instead decreased. The return on the family capital and the operator's income also showed advances of varying degree.

The interest obtained on capital sums invested in agriculture has greatly improved, as will be seen from the following figures:

Net Return per cent. on Capital Assets.

	1932-33	1933-34
Farms of less than 50 ha., Centre	1.08	2.34
» of over 50 ha., Centre	1.30	1.74
» of less than 50 ha., South	4.70	5.63
» of over 50 ha., South	3.66	4.92

Soissonnais (France).

In 1932-33 the number of farms under review was 75, and in the following year 99. The general characteristics of the farms analysed did not vary; they all belong to the same homogeneous region constituted by the Soissonnais district and by the neighbouring areas in the departments of Oise and Aisne, and accordingly the 99 farms of 1933 may be very usefully compared with the 75 of 1932.

On these farms, the intensive cultivation of wheat, as of industrial crops, is indicated, as already remarked in a previous article, by the quality and quantity of soils found in this region, a region densely populated and adjoining large urban and industrial centres. Stock-breeding and dairy farming are comparatively of small importance.

The gross return of the crop production increased by 30 per cent. from 1932-33 to 1933-34, and the total gross return by 7 per cent. in the same period. The farming expenses advanced, but the social income rose to a level 5 per cent. higher than the 1932-33 figure. The income passing to third parties diminished, owing to the decrease in the expenditure occasioned by employment of labour, and in this way an improvement was possible in the return on own capital and in the operator's income.

Overijssel (Netherlands).

In 1932-33, two opposing tendencies were noticeable: the gross return of the wheat-growing farms in the marshland districts was high, while the gross return of the mixed farms situated in the sandy and peat districts was unsatisfactory.

The situation showed a change in 1933-34. The price index of crop products rose by 17 per cent. and the price index of animal products rose by 2 per cent. Milk production greatly increased; and a very considerable impetus was given to stock-breeding.

Gross Return, in Volume per Hectare.
(Quantities Sold and Delivered to the Farm Household)

	Cattle, kg. of live weight		Milk, kg.		Pigs, kg. of live weight	
	1932-33	1933-34	1932-33	1933-34	1932-33	1933-34
Mixed farms in sandy and peaty districts	18	106	1,500	1,772	170	156
Farms situated in the marshland districts	18	36	474	364	31	38

The gross return of the crop production on the mixed farms of the sandy and peat districts exceeded by 10.05 florins per hectare, and that of those farms on the marshland districts by 59.15 florins per hectare, the return of 1932-33. The farming expenses of 1933-34 exceeded by 4.25 per cent. the figure of the previous year on the mixed farms of the sandy and peat districts, and by 2.67 per cent. on the farms of the marshland districts. The total gross return, however, showed so considerable an advance on that of 1932-33 that the social income of the former group of farms increased by 42 per cent. and that of the second group by 32 per cent. The cost of paid labour was less; the income passing to third persons was somewhat smaller than in 1932-33; from being negative the return on own capital of the farms situated in the marshland districts became positive; the operator's income rose by 25 per cent. on the mixed farms of the sandy and peat districts, and by 33 per cent. on the farms of the other group. The results on the mixed farms could not be quite so satisfactory as on the farms situated on the marshlands, as the returns of mixed farms had been too far behind those of the other group in 1932-33.

Hungary.

The wholesale price movement, published by the *Hungarian Statistical Review*, indicates that from 1932-33 to 1933-34 the prices of agricultural products declined to a greater degree than the prices of industrial commodities:

Index-numbers of Wholesale Prices.

(1913 = 100).

	Agricultural products	Industrial commodities	Prices of agricultural products in ratio of prices of industrial commodities
1932	83.3	110.3	75.2
1933	61.8	105.3	58.7

The farms of average size which were in 1932-33 in a worse position than those of the other two groups recovered ground in 1933-34, owing mainly to intensification of pig-fattening. The figures of the table enable another observation to be made: the wages of hired labour were considerably reduced and the share of the social income falling to the farmers was larger.

Romania.

Here, as in Hungary, the price movement was not favourable to the farmers.

Index-numbers of Wholesale Prices (I).

(1929 = 100).

	Agricultural products	Industrial products
1932.	47.7	62.1
1933.	44.9	62.1
1934.	44.1	63.3
1935.	48.4	74.7
1936.	54.0	84.4

Prices of industrial commodities did not vary from 1932 to 1933, while the prices of agricultural products declined. Farms growing cereals in Moldavia and in the Bucarest district are still too few for it to be possible to draw conclusions of any value from the accountancy results. None the less it is evident that cereal cultivation was more advantageous in 1933-34 in Moldavia than in the neighbourhood of the capital. There remain the farms growing cereals in Muntenia and Oltenia, already much more representative of the region to which they belong. The gross return, the social income, and the operator's income of these farms decreased by reason of the unfavourable relation existing between prices of agricultural products and those of industrial commodities.

In an article shortly to appear, we shall deal with the farms of Central Europe: Poland, Estonia, Latvia, Lithuania, Czechoslovakia.

JOSEPH DESLARZES.

EFFORTS TO STABILISE AGRICULTURE IN THE UNITED STATES

The economic position of United States agriculture is exceptional. The industrial development of the country is such that the domestic market is by far the most important market for what the American farmer produces, but there is, as yet, no necessity to import any large proportion of the agricultural produce consumed. The export markets, for which the American farmer so largely produced in the past, have dwindled considerably in recent years and almost the only important product that is still grown mainly for export is cotton.

The methods that are being adopted or suggested in the United States to give greater stability to agriculture are not, therefore, directly applicable to industrial countries that require to import large quantities of agricultural

produce, nor to agricultural countries dependent mainly on foreign markets. But a study of those methods cannot fail to be of interest to any country where it is being sought to place agriculture on a stable basis.

In the United States, the problem of stabilising agriculture is, in the main, that of adjusting agricultural production to domestic needs and to such foreign outlets as may still be counted upon. The approach to the problem has, however, changed, not only as circumstances have changed, but also in the light of experience.

In the early days of the agricultural crisis, when prices were abnormally low, it was sought to raise them by means of tariffs and it was urged that the surpluses should be taken off the domestic market and sold abroad at whatever price they would fetch. But tariffs are of no great effect in raising the prices of products of which there is an exportable surplus, and the proposal to sell the surplus abroad broke down on account of the anti-dumping laws of other countries and the restrictions they imposed upon imports.

The establishment of the Federal Farm Board was another attempt to deal with the problem. The Board endeavoured to maintain prices by granting loans on stored commodities and by making large purchases of products, notably of wheat. But the Board had no power to control production, and surpluses continued to accumulate, forcing the prices below the level at which loans or purchases had been made. As a result, the Government incurred very heavy losses.

The Agricultural Adjustment Act introduced a system of controlling production. There was no compulsory control, but inducements to adjust production were offered to the farmers in the form of benefit payments. Further inducements were offered, as regards the production of cotton and tobacco, by the Bankhead Cotton Act and the Kerr-Smith Tobacco Act. The method here adopted was to place a tax on production but to exempt from the tax the production of any grower up to a limit to be determined in relation to his production in previous years. This method approached a step nearer to compulsory control, since the taxation was imposed without giving any option in the matter to the individual grower, though the growers as a whole were consulted regarding the application or continuance of the system.

At the time of the passing of these Acts there were still large surpluses to be disposed of and prices were unduly low. The objective of the Agricultural Adjustment Act was "price parity;" this is clearly indicated by the Act itself, the policy of which was declared to be to "re-establish prices to farmers at a level that will give agricultural commodities a purchasing power with respect to articles that farmers buy, equivalent to the purchasing power in the base period." For all agricultural commodities except tobacco, the base period was defined as August 1909 to July 1914; for tobacco it was August 1919 to July 1929.

The action taken by the Agricultural Adjustment Administration established under the Adjustment Act and by other Federal agencies working in conjunction with it was largely successful in reducing the surpluses that weighed on the market. Not only were benefit payments offered for the adjustment of production, but loans were made on stored commodities, and large quantities of

products were purchased and distributed to unemployed or needy persons. But even more effective was the action of the drought in 1934 and 1936.

When the main provisions of the Agricultural Adjustment Act were declared unconstitutional at the beginning of 1936, the task of the Agricultural Adjustment Administration had been largely accomplished. The emergency had passed, and it was possible to put forward a long-time programme. This was done in the Soil Conservation and Domestic Allotment Act, in which the emphasis was transferred from the adjustment of production to the conservation of the soil, that is, to the prevention of erosion, by water or by wind, and to the maintenance of the fertility of the soil.

But the Soil Conservation Act had also a more immediate object, the attainment and maintenance of "income parity." It provides, in fact, for the "re-establishment, at as rapid a rate as the Secretary of Agriculture determines to be practicable and in the general interest, of the ratio between the purchasing power of the net income per person on farms and that of the income per person not on farms that prevailed during the five-year period August 1909-July 1914, inclusive, as determined from statistics available in the United States Department of Agriculture, and the maintenance of such ratio."

It is clear that "income parity," if it could be achieved and maintained, would bring American agriculture nearer to stability than "price parity" would do. The prices of agricultural produce, though they influence the farmer's income, are not in themselves a measure of that income, and still less are they a measure of its purchasing power.

But other proposals have been put forward for giving stability to agriculture. Notable amongst these is the system advocated by the Secretary of Agriculture under the name of "the ever normal granary." The system has been defined by the Secretary himself as "a definite system whereby supplies following years of drought or other great calamity would be large enough to take care of the consumer, but under which the farmer would not be penalized in years of favorable weather."

The underlying idea, as the name implies, is to hold back from the market the surplus supplies of bumper years and to release them in years of short crops. An illustration of the working of the system in a simple case is furnished by the corn (maize) loans of 1933. In that year corn was particularly abundant, and the Federal Government made loans on corn stored on farms. The primary object of the loans was to prevent the collapse of prices, but they proved to have served another purpose as well. In 1934 there was a drought and the corn crop was extremely short. Prices rose above the level at which the loans had been made and the farmers paid off the loans and released the corn. Thus the loans served to balance the harvests of 1933 and 1934.

Commodity loans, therefore, furnish one method of keeping surplus supplies off the market. Another method that has been suggested is a form of crop insurance, in which premiums would be paid in kind, thus forming a reserve out of which compensation would be paid to farmers, also in kind, in years of scanty production. The reserve formed by the assembling of the premiums would be stored and held off the market; the quantities paid out as compens-

ation would, on the other hand, be released and thrown on the market. It should be noted that it is not proposed to insure prices; it is only proposed to insure production. The double hazard of production and prices is probably too great and too incalculable to be insured and it is felt that even the production risk can only be safely undertaken by the Government.

The removal of surpluses by direct purchase and distribution amongst the unemployed is another method of disposing of inconveniently large supplies, but commodities dealt with in this way are consumed and cannot be utilised to balance a scanty harvest occurring later.

But what is to be done when the harvests are abundant for two or more years in succession and the supplies withheld from the market tend to become excessively large? One step that can be taken is to reduce the level at which commodity loans are given, or even to suspend the granting of loans altogether. But, to prevent the experience of the Federal Farm Board from being repeated and heavy losses being incurred by the Government, some form of positive production control would be necessary. As the Secretary of Agriculture puts it, when this point is reached, the grain must be stored in the soil and not in the bin. In other words, the farmers must reduce their production of the crops of which there are excessive supplies and conserve the fertility of the soil to facilitate production when supplies are again brought back to the normal or have fallen below it. But production control on the lines laid down by the Agricultural Adjustment Act has been declared unconstitutional and some method must be evolved which is admissible under the United States constitution.

Incidentally it may be remarked that the soil conservation programme at present being carried out, by encouraging the cultivation of soil-conserving crops, such as alfalfa and pastures, which are also drought-resistant, helps to stabilise the supplies of feed for live stock and, therefore, live stock production itself. But much more extensive powers of controlling production would be needed to prevent the ever normal granary system from breaking down after a succession of abundant harvests.

Another method of controlling production is by fixing "market quotas." This means that, if the supplies of any product were excessive, a limit would be fixed to the quantity of that product that any farmer could sell or utilise on his farm. The farmer would be obliged to store any quantity in excess of the limit fixed for him, and would only be allowed to sell it when supplies had been brought back to the normal. This would compel the farmers to reduce their production in the following year.

Bills embodying the principle of the ever normal granary have been passed by both the House of Representatives and the Senate and an act will no doubt be finally voted that will represent a compromise between the two bills. At the time of writing it is uncertain what precise form it will take (1).

J. K. MONTGOMERY.

(1) As we go to press, we learn that the Farm Bill, after being passed by Congress, was signed by the President on 16 February. An outline of its provisions will be given in a subsequent issue of this *Bulletin*.

CORPORATIVE ORGANISATION OF AGRICULTURE IN PORTUGAL

SUMMARY: *General principles of the organisation:* (a) Statute of national labour; (b) National workers' syndicates; (c) Employers' syndicates; (d) Federations and Unions (Organs of economic co-ordination); (e) People's Centres (Casas do Povo). — *Agricultural policy of the State*

The interest attaching to the forms of political, economic and social organisation which endeavour to bring agriculture within the framework of a system of planned economy, is not confined to the countries in which such a system has been adopted. Nearly everywhere and by various means, there is being sought the solution of certain problems of economic and social organisation and a widespread international interest, apart from their national interest, attaches to endeavours made in this sense. It was for this reason that in 1936 there was published in this *Bulletin* a study of the corporative organisation of agriculture in Italy. This is now being followed by another article relating to the solution of the same problem in Portugal, and in future readers will be kept informed of any development of these new forms of organisation.

General Principles of the Organisation.

To ensure a full understanding of the corporative organisation of Portuguese agriculture, it is essential to be acquainted with the general principles of the whole corporative structure, since this forms in Portugal a harmonious whole. The principle of the orientation may be summarised in the words: *autonomous direction of the economy by the corporations according to the higher orientation consisting in the co-ordination and supervision exercised by the State.*

The initial point of departure of the corporative organisation in Portugal was the publication of six Decree-Laws on 23 September 1933. By these were established the Statute of National Labour, the national workers' syndicates, the masters' syndicates, the federations and unions of workers' and masters' syndicates, people's agricultural centres (*casas do povo*), and the National Institute of Labour and Insurance, which may be regarded as the real motive force of the corporative organisation. Some account will be given of the most outstanding characteristics of these organisations.

(a) THE STATUTE OF NATIONAL LABOUR.

The Statute of National Labour serves as the standard rule for all the corporative organisation. The fundamental principles of this statute are as follows:

To consider the Portuguese nation as a moral, political and economic unit the objects and interests of which take precedence of those of the individuals and groups of which the nation consists; under the social aspect of production and of wealth, property, capital and labour fulfil a social function in the system of economic co-operation and solidarity; the State recognises private

initiative as the instrument most conducing to the economic progress of the nation; the individuals and the corporative organisations are to act in a spirit of social peace, that is to say the class struggle must be repudiated; the function of justice is vested absolutely in the State. Labour courts are constituted for deciding all disputes between capital and labour, seeing that strikes and lockouts are strictly prohibited. The State does not as a rule exercise any commercial or industrial activity, and accordingly the formation of monopolies is limited to exceptional cases and monopolies are justified only when by their formation it becomes possible to obtain social advantages superior to those which would be obtained apart from their action. The State is expected to co-ordinate and regulate the economic and social life by seeking to establish equilibrium in production, in employment, in capital and in labour. It should protect the national economy against agricultural, industrial and commercial enterprises of a parasitic nature, incompatible with the higher interests of human life; it should secure the lowest prices and the highest wages compatible with the fair remuneration of the other elements of production, by means of the improvement of technique of the services and by the institution of credit facilities.

The Statute of Labour recognises the right to private property but subordinates the exercise of this right to restrictions which may be imposed in the public interest. It assigns to capital the obligation of reconciling its legitimate interests with those of labour and the public economy. Capital has the right to direct enterprises and the duty of co-operating with the State and the corporative organisations for the improvement of the workers' situation. Labour is defined by the Statute as a duty of social solidarity and the worker is defined as a collaborator in the enterprise. Although a minimum limit exists for wages they are not subject to an absolute rule and the same is true of the working day. The Statute recognises the right to the Sunday day of rest, to annual paid holidays and establishes for employers and workers obligatory collective labour agreements.

Finally the Statute, under heading 3, traces the general bases of the corporative organisation properly so called which consists of three grades: in the first are the national syndicates of workers, the masters' syndicates and the people's agricultural centres and the fishermen's centres; in the second, the federations and unions grouped in the so-called organs of economic co-ordination and, in the last place, the corporations properly so-called which constitute the unitary organisation of the forces of production and represent their interests as a whole.

(b) NATIONAL WORKERS' SYNDICATES (I).

With a view to the proper comprehension of the hierarchical order of the corporative organisations, it will here be stated in the first place that, from

(1) The Portuguese expression is "Sindicatos nacionais" which is here rendered "national syndicates," although the syndicates are not national in the sense of covering the whole country, but merely in the sense of forming part of the national system.

the administrative point of view, Portugal is divided into provinces, districts, circumscriptions (*concelho*) and communes (*freguesia*).

The syndicates are formed by persons following the same occupation and working on the account of other persons at manual work, or in the liberal professions. The minimum number of members for which a syndicate can be constituted is one hundred, but exceptionally the formation of syndicates of less than a hundred members may be authorised.

The liberal professions form a single national syndicate with headquarters at Lisbon, the activity of which is confined to objects of moral and intellectual improvement.

The basis of the organisation of the other syndicates is the district, but sections of syndicates may also be constituted in the circumscriptions of greatest industrial activity. The professions which in a single district do not number enough individuals to be formed into a national syndicate are to form part, in the same district, of other syndicates as similar as possible, it being permissible to form therein groups, distinct but subject to the general discipline of the syndicate.

In each district the State recognises only a single national syndicate for each occupational category. This recognition, granted by approval of the terms of constitution by the Under-Secretary of State of the Corporations, confers on the syndicate the character of a public institution and the right to bear the designation of national syndicate.

The official recognition conferred on the syndicate does not merely represent a simple authorisation allowing it to function, but it also confers on it the capacity to represent all the workers engaged in the occupation in question and the interests of these workers. It is for this reason that the collective labour agreements and the regulations drawn up by the national syndicate and duly approved and sanctioned by the higher authorities, are binding on all workers in the district in which the syndicate has been constituted, whether they are members of it or not; in other words the national syndicate does not merely represent its own members enrolled therein but the whole class.

The function of the national syndicates is to study, maintain and protect the vocational rights and interests from the economic, moral and social standpoint. With this object it is *ex officio* incumbent on them to establish, with the approval of the Government and with the collaboration of the masters' syndicates, insurance institutes, labour exchanges, vocational schools, producers' and consumers' co-operative societies, and the like. Among all these activities there stand out for their importance the syndical insurance funds supported by employers' and workers' contributions and regulated by the Decree of 12 December 1935.

On the other hand the syndicates are to exercise their activity with an absolute respect for the principles of the Statute of Labour and in the spirit of solidarity. It is prohibited for them to associate themselves with organisations of an international character or to receive grants from such organisations.

It may be remarked in conclusion that the State ensures the proper conduct and functioning of the syndicates by means of delegates of the National Insti-

tute of Labour and Insurance; it also reserves to itself the approval of the general lines of action of the syndicates, and the power of proceeding to the dissolution of a syndicate if there is any departure from the corporative spirit which brought it into existence.

(c) MASTERS' OR EMPLOYERS' SYNDICATES.

The organisation of the employers' element is carried out in Portugal by means of the associations known as "gremios," of which there are two kinds: the compulsory and the optional type. It is advisable to maintain this distinction, as each of these types has its special characteristics and represents a distinct tendency in the Portuguese corporative organisation.

The obligatory "gremios" or syndicates, established by the Decree Law of 23 November 1933, group the enterprises which exercise the same branch of trade, industry and agriculture. These masters' syndicates are characterised by two features: their establishment by the exclusive initiative of the Government and the fact that membership is obligatory; these two facts are contrary to the general orientation of the whole corporative organisation, but are justified by the Government on the ground of the inevitable necessity for proceeding to the organisation of certain activities of primary national importance.

It is the business of these organisations to resolve problems which formerly had to be dealt with by various bodies: *viz.*, problems of a social order; the regulation of labour conditions by means of collective agreements concluded with the national workers' syndicates; problems of economic type corresponding to each branch of production, the organisations for this purpose making use of the powers of regulation with which they are endowed. In respect of the social order, this class of masters' syndicates is subordinate to the Institute of Labour and Insurance, and in the technical and economic sphere they are placed under the competent Ministries.

Comparing the Decree in accordance with which the masters' syndicates were founded with the Decree establishing the workers' syndicates, the difference between the two is at once noticeable. The second decree is merely the adaptation to the new corporative spirit of the former law on category associations; on the other hand, the decree which establishes the masters' syndicates is not an adaptation of the legislation on the former associations of the kind, but is something altogether new. The masters' syndicates are not parallel organisations with the workers' syndicates. In the case of the former, the intention has been to emphasise the economic importance, and accordingly a specialised character has been conferred on them. It is for this reason that the decree on the workers' syndicates contains a detailed schedule of their functions and activities, while that on the masters' syndicates, or "gremios," merely established certain general principles and leaves to each syndicate a wide margin of elasticity. On the same ground, art. 1 of the decree states that "the sphere of action of the gremios varies in accordance with the special requirements of each form of activity."

The general principles to which reference has been made are: that the masters' syndicate is to exercise its activity in the national plane and with absolute

respect for the higher interests of the nation and for the principles of the Statute of Labour, that it is to subordinate its own interests to those of the national economy and that it is to maintain an opposition alike to the class struggle and to the predominance of plutocracies. To sum up, the obligatory masters' syndicates are characterised by the fact that their organisation has been created and imposed by the State, and that with them the economic aspect is predominant.

The imposition of the corporative organisation by the State was not, however, to be the definitive and general rule, since it is opposed to the orientation established by the Statute of Labour, an orientation which, as has already been noted, tends to encourage the spontaneous organisation of the forces of production and to secure the autonomous direction of the economy by means of the corporations. It is for this reason that the Decree-Law of December 1934 authorises the constitution of syndicates on the initiative of the groups concerned. In the preamble of this Decree the Government itself states that the corporative organisation should, as a rule, be optional and that the formation of the masters' syndicates has been due to urgent requirements which rendered it impossible to wait for the spontaneous organisation on the part of the persons concerned and rendered necessary the creative initiative of the State.

According to this Decree, the undertakings in a district belonging to a definite branch of industry or trade may apply to the Under-Secretary of State of the Corporations for the constitution of a syndicate, if these undertakings represent at least half of those of similar type in the district and the half of the total volume of business. From the social standpoint, these voluntary syndicates are assimilated with the obligatory type. From the economic standpoint they may apply to the Government to approve the measures taken by themselves as regards co-ordination and regulation of their respective activities. These syndicates are subject to the supervision of the Institute of Labour and Insurance in regard to their social aspect, and in respect of economic and technical questions they are expected to follow the guiding lines traced for them by the Government through the competent Ministries. For the Government to authorise the constitution of a voluntary syndicate it is necessary that this should give evidence of a real corporative spirit, eschewing any monopolist tendency which is the greatest danger these organisations can offer.

The functions of the syndicates are manifold: social assistance and insurance, credit, co-operation, inspection of the quality of products, etc. The syndicates have a representation in the respective organisations of economic co-ordination and are enabled thus to protect their own interests.

(d) FEDERATIONS AND UNIONS (ORGANISATIONS OF ECONOMIC CO-ORDINATION).

The federations group workers' or masters' syndicates of the same nature both within a region and in the whole nation; the unions group similar workers' or masters' syndicates so as to represent in their whole all the interests of the main branches of national activities. Various federations and unions have been established which have given excellent results from the economic and

social standpoints; but these have had the disadvantage of absorbing into themselves the masters' syndicates almost entirely, so that these have in consequence had little more than a nominal existence. In order to remedy this drawback the federations and the unions are being gradually transformed into what are known as "organisations of economic co-ordination," which leave more liberty of action to the masters' syndicates, while reserving to themselves the higher orientation and co-ordination.

The main characteristics of these organisations of economic co-ordination are that in these the State orientation is predominant, that their functions have an official character and that they constitute links between the State and the corporative bodies properly so-called. Their principal function is to carry out the national policy in respect of products, especially of agricultural products of most economic value, an object for which they have to co-ordinate the production of the industry of and the trade in these products.

The bodies of economic co-ordination are of three classes, *viz.*, the regulating commissions, the national councils and the institutes. The duty of the regulating commissions is to regulate importation in accordance with production needs; the national councils develop and co-ordinate the activities of production and of trade in view of a further expansion of the Portuguese export trade; the purpose of the institutes is to guarantee officially the quality of the most important products for export.

As will be seen later, the co-ordinating bodies of the three classes are functioning already successfully: the Rice and Cotton Regulating Commissions, the Institutes for Port Wine and for Fish Preserves and the National Councils for Fruits, Forestry Products and for the Flour Industry.

(e) PEOPLE'S CENTRES.

These institutions are corporative organisms of a strictly agricultural and social character. They are constituted in accordance with the principle of an undifferentiated organisation, as they include both masters and workers. The reason for this characteristic is that, in the Portuguese rural areas, there is no very marked difference between the farmers and the workers, seeing that the employer farmer is generally no more than a small holder who often becomes a worker, working on the holding of another person. In Portuguese farming circles there was still in existence a spirit of social co-operation which had already disappeared in the sector of trade and of large industry, and it was for this reason advisable to create an organisation adapted to this state of affairs which found expression in the people's centres (*casas do povo*).

The functions of these organisations are mainly of a social kind, and among them the most important are those dealing with insurance and with assistance in favour of members and with their instruction. Provision is made for this last by means of libraries, schools, lectures, etc. Special attention is attached to local progress with the twofold intention of securing for the members the highest possible welfare by raising their standard of living, and of obtaining at the same time occupation for them in the institutions of local progress in times when work is scarce, in this way making some provision against unemployment.

The State grants subsidies to these organisations, which also have at disposal the contributions of their members, such contributions being graduated according as the members are employers or only workers.

Agricultural Policy of the State.

In the whole corporative organisation of which an account has just been given, the part which has the closest relation with agriculture is represented by the people's centres and by the organisations of economic co-ordination into which, as we have seen, the federations and the unions of the masters' and workers' syndicates have been transformed. In other words, in the corporative organisation of Portuguese agriculture all the social aspect is concentrated in the people's centres and all that has reference to the economic and technical side is entrusted to the organisations of economic co-ordination.

So as to make clear the practical results of the corporative organisation some account will be given of the position in regard to the two main products of the Portuguese soil, wheat and wine, both before the beginning of the corporative administration and after the application of corporative principles to agriculture.

The policy in regard to cereal cultivation before the formation of the new State was always, in spite of its protectionist character, inadequate to the guaranteeing of a remunerative price for wheat. Portugal being a country of deficitary production in relation to consumption, which is calculated at 400,000,000 kilogrammes, wheat had to be imported every year. The protectionist legislation mentioned did not suffice for the solution of this problem, as it was only with difficulty that a slightly remunerative price was maintained during the seasons of low production, while in years when the harvests were adequate to cover the requirements of the nation prices fell none the less. This fall of prices was inevitable as the consequence of a large and unsystematic supply, and as no legislative provisions could prevent it prices touched levels so low that the agricultural economy as a whole suffered constantly.

The new State undertook, with a view to meeting this abnormal situation, the "Wheat Campaign." Four years (1929 to 1933) were enough to win the victory desired and to obtain a production adequate to the consumption as well as a remunerative price for the grower.

The measures which led to this success were various in kind. The most important were: technical assistance, financial assistance and a strict sliding scale of prices regulating the sales. The first, technical assistance, took the form of seed selection, the extension of the area under cultivation, the employment on a larger scale of fertilisers, etc. Financial assistance consisted in an increase of credit facilities, with more advantageous conditions for the farmer; the sliding scale, rigidly maintained, has brought about a rise in wheat prices.

The figures here reproduced reflect quite clearly the situation as it was at the beginning of the Wheat Campaign and the change brought about by the measures adopted in the following years.

	Situation during the five-year period 1924 to 1928	Situation during the five-year period 1929 to 1933
Average production of wheat	300,000,000 kg.	430,000,000 kg.
Imports	145,000,000 »	—
Utilisation of nitrogenous fertiliser . .	18,000,000 »	65,000,000 kg.
Funds allocated for credit facilities . .	27,000,000 \$	89,000,000 \$

Taking into account that the total consumption of wheat in Portugal fluctuates around 400,000,000 kg., as a result of the measures just described, the national production of the five-year period 1929 to 1933 satisfied the requirements.

The organisation employed for the conduct of the Wheat Campaign was the National Federation of Wheat Growers. Its main function was that of ensuring that the minimum price established by law was observed in commercial transactions. For this purpose the Federation was endowed with a credit of 150,000,000 *escudos* to enable it to purchase all the wheat offered by the growers. The Federation received assistance in its work from the local masters' and workers' syndicates. One of the great advantages of this organisation, largely contributing to the success desired, was the abolition of every intermediary element in the wheat trade, with the result that the exaggerated profits obtained previously by these intermediaries then served to ameliorate the situation of the farmers.

Subsequently, in order to harmonise the interests of the wheat growers with those of the wheat industry, the National Federation of Flour Manufacturers was formed.

On the other hand, the victory achieved in the Wheat Campaign soon gave rise to a new problem, that of over-production. Actually, the wheat harvest of the farming seasons 1934 and 1935 both exceeded by more than 65 per cent. the requirements of the national consumption; there was a very large surplus at the end of the second year and taken with the carryover of 1934 the stocks at the end of 1935 amounted to 700,000,000 kg.

The Government found itself obliged to deal with this abnormal situation and among the various possible measures the one was adopted that was most within its scope and most in harmony with the previous policy; on the one hand, endeavours were made to increase consumption and on the other to reduce production. If a larger consumption was to be obtained lower prices were essential and in 1935 the minimum price was lowered to 1.30 *escudos* in place of the existing price, which was 1.50. In addition the Government had recourse to the purchase of surpluses at the fixed price and to storage the object being to withdraw supplies temporarily from the market.

The good results of these measures were not slow in making themselves felt, and, thanks to the skilful policy of the State it was possible to remedy the poor crop of 1936.

A brief survey may now be made of the results secured in the Douro region, for the export of Port wines by means of the "Casa do Douro," the Syndicate of Exporters of Port Wine, and by the Wine Institute of Oporto. The syndicalis-

ation of producers of the Douro extends over all the region and 56 producers' syndicates are grouped in ten unions.

In these organisations there are 8,718 vine-growers producing 40,000,000 litres of table wines, and 3,000 who produce 44,000,000 litres of fine or full-bodied wines, the typical wine of Oporto. Prices of wines fell during 1933 to unheard-of levels, so far indeed that a cask of 550 litres was finally sold for 150 \$, a price which, given the cost of production, represented ruin and direst poverty for the fertile region of the Douro. By the establishment of the "Casa do Douro," the constitution of the Federation of Exporters and of the Wine Institute of Oporto, the whole cycle of production and of the trade in wine was brought under the corporative system, and two years later the price of a cask of the same capacity of 550 litres had risen to 435 \$, that is to say to nearly treble the 1933 price. This very considerable rise was experienced throughout the region with a consequent marked improvement in conditions of life and labour. This result was reached by the application of measures very similar to those that had been adopted in the Wheat Campaign; plentiful credit, supervision of the vine cultivation and of the production of wines with the object of securing the maintenance of the good reputation of Portuguese wines on the foreign markets where they had generally found a sale.

A similar procedure was followed for rice, for which it has always been difficult to ensure remunerative sales on the market, up to the time when the Government established a corporative organisation, *viz.*, a commission for regulation of cultivation of, trade in and export of rice, on which were represented all the interests of growers and consumers. Shortly after the setting up of this organisation, market adjustment was secured, the product being sold at a remunerative price without prejudice to the consumer.

E. MARTINEZ.

INTERNATIONAL CHRONICLE OF AGRICULTURE

CANADA

The two outstanding factors influencing Canada's economy during 1937 were the disastrous drought which practically ruined Saskatchewan's wheat crop, and the autumn slump in the stock markets which caused a perceptible drop in the index of general economic activity during the last few weeks of the year.

The 1937 wheat crop was finally estimated at 182.4 million bushels, 47 millions below 1936, and the lowest since 1914 when acreage was 60 per cent. lower. The Saskatchewan crop was almost a complete failure, yielding only 2.5 bushels per acre over 57 per cent. of wheat acreage in the entire west. Production of each of the principal coarse grains except flaxseed, however, recorded gains, livestock receipts increased, dairy output expanded and prices of farm produce in general were firm. Consequently with wheat prices strong (Manitoba No. 1 in Winnipeg averaging \$1.37 1/2 during 1937 compared with 94 cents in 1936) rural buying power was substantially

higher than in the previous year except in Saskatchewan, where acute distress still reigns and the majority of farmers are on relief.

The other important indices of Canadian economic life have maintained a good level: mineral production, tourist traffic, newsprint production, contracts and prices, construction, electric power consumption, and revenue of the two transcontinental railway systems. The budgetary situation, Federal Government finance and the exchange position of the dollar are also satisfactory. Business in general remained active and unemployment low until the last few weeks of the year when the influence of the earlier break in stock market prices and political and economic uncertainties in the United States began to be felt. The general economic index, after remaining around 112-115 during the summer and autumn, declined to 103.6 on 27 November, compared with 112.9 on the corresponding date in 1936, and variations from week to week were rather pronounced.

I. — MEASURES AFFECTING MARKETS AND PRICES.

Trade Agreements.

Canada recently renewed and amplified its trade agreements with Australia and New Zealand. The main alterations, effected by Orders-in-Council of 1 October, take the form of concessions in Canadian tariff schedules designed to meet representations put forward by the other countries with a view to improving their balance of trade with Canada. Accordingly, the agreement of 1931 with Australia is prolonged for another year and will remain automatically in force subject to six months' denunciation by either Government, while the agreement of 1932 with New Zealand is prolonged for one year up to 30 September 1938.

Canada lowered the duty on fresh lamb and mutton imported from both Australia and New Zealand from 3 cents to $\frac{1}{2}$ cent per lb., and admits canned meats, poultry and game free of duty, the former rate having been 15 per cent ad valorem. New Zealand hops are now admitted free (the former rate was 6 cents per lb.) while the rates on Australian powdered milk and casein were lowered from 5 to 1 cent per lb. and from 1 cent per lb. to $12\frac{1}{2}$ per cent. ad valorem respectively. Other reductions were made on Australian canned fruits, fruit syrups, and fresh grape wines.

A Trade Agreement was signed with Guatemala on 28 September providing for reciprocal unconditional and unrestricted most favoured nation treatment in customs duties and subsidiary charges on the products of each country imported into the other (1). The usual exception is made, in the case of Canada, as regards preferences granted to other parts of the British Empire, and, in the case of Guatemala, as regards any advantages accorded to other Central American countries.

National treatment is also guaranteed by each country with respect to internal taxes, fees, charges, or exactions, Canada making exception on imports of leaf tobacco, spirits, beer, malt, and malt syrup, on which, however, most favoured nation treatment is otherwise to apply.

(1) At the same time as the above Trade Agreement was signed, an Exchange of Notes took place constituting an agreement for the provisional exchange of most favoured nation treatment as from 14 October 1937, pending the coming into force of the Trade Agreement, which will require ratification by the Canadian Parliament.

Guatemala exempts imports from Canada from the 100 per cent. increase in customs duties and other taxes imposed by a law of 26 January 1935, on goods from countries whose commercial balance with Guatemala is unfavourable to the latter and which have increased their imports into that country during 1935 by 100 per cent. or more as compared with 1934. Canada also benefits from the duty reductions granted by Guatemala to the United States under the agreement of 15 June 1936 on powdered milk, oatmeal and similar cereal products, certain fresh, refrigerated and salted meats, etc. Guarantees against duty increases were also given in the case of imports of wheat and flour, condensed milk, butter, cheese, canned fruits and vegetables, etc.

The standing of import quotas allocated to Canada under the Canada-United States Trade Agreement on 27 November was as follows:— the quotas for cattle weighing 700 lb. or more, calves weighing less than 175, and seed potatoes were completely filled; the quota on dairy cows was utilised 30.2 per cent. and on cream 8.6 per cent.

Federal and Provincial Regulation of Marketing.

Since the Privy Council of the United Kingdom declared the Natural Products Marketing Act unconstitutional in January 1937, there has been no change, from the legal point of view, in the situation as regards the power of the Federal Government internally to regulate commodity market and price conditions. A Canadian Supreme Court judge subsequently restrained by injunction the British Columbia Dairy Products Board from collecting licence fees or otherwise interfering with the sale of milk, on the ground that such a licence fee is an indirect tax which a province may not levy under the British North America Act.

In Quebec, an Agricultural Products Act, and regulations thereunder, concerning the marketing and transportation within the province of fruit and vegetables was published on 14 August. The only part of the legislation which has yet come into force is a group of regulations concerning grading and marketing while the important provisions of the law will not become effective until a day is fixed by the Lieutenant-Governor in Council.

II. — MEASURES AFFECTING AGRICULTURAL ECONOMY IN GENERAL.

Emergency Provisions regarding Livestock.

Several emergency measures were passed by the Dominion Government in order to safeguard the condition of livestock in the drought area in the Prairie Provinces and to assist in the movement of livestock from drought areas to other parts of the country where there is sufficient feed.

Under the Feeder-Freight Policy, the Dominion Government undertook to refund half the freight costs on cattle purchased at country points in prescribed drought areas and shipped to country points outside these areas in any province, provided that the purchaser retained the cattle for at least three months. Applicants from British Columbia or Eastern Canada who wished to go to the drought area personally to select stock purchased under this policy similarly were allowed one-half of their railway fare and expenses.

The Dominion Government also undertook to pay all of the net freight cost on horses, cattle and sheep shipped up to 31 December 1937 under Provincial Certificate to suitable feeding areas and returned, in any of the Prairie Provinces and in British Columbia.

Under agreement with the Provincial Government concerned, the Dominion Government also undertook to pay the net cost of freight on equipment transported to areas where feed was available by those desiring to provide feed for themselves.

The Feed and Fodder Policy covered payment for feed and fodder, including net freight cost, supplied by the Provincial Government concerned to municipalities and individuals unable to pay for it themselves. Prices for such feed were subject to agreement between the Dominion and the Province. Supplies were limited to the amounts necessary to maintain the minimum stock required for family needs.

The Cattle Market Policy envisaged a plan by which cattle could be assembled and classified at shipping points or grazing reserves and marketed either for feeding purposes or for slaughter. This was intended to aid drought area farmers who own small numbers of cattle and are consequently at a disadvantage in marketing.

In addition the Dominion Government granted exemption from import duties on purchases of fodder oats and maize by the Government of Saskatchewan for relief purposes in that province. The ordinary duty on oats and maize imported from the United States is 9 and 20 cents per bushel respectively.

GERMANY

In 1937 economic activity further increased. The index-number for industrial production (1928 = 100), rose from 58 in 1932, when it was at its lowest point, to 108 in 1936 and to 119 in 1937. The value of retail trade amounted to 21,200 million Reichsmarks in the first nine months of 1937, which is to be compared with 19,200 million RM. in the first nine months of 1936. Of the more than 5,500,000 unemployed shown by the average of the monthly figures for 1932, there remained at the end of September 1937 only 469,000. Investigations have, further, shown that of these about 157,000 were only partially employable and 70,000 out of work while changing their place of work. The increase in the number of regularly employed was even greater than the decrease in the number of unemployed, by reason of the addition to the number of workers of those leaving the schools and also of the smaller amount of public relief work. The number of the regularly employed workers and employees shown by the average of the monthly figures, rose from 12,580,000 in 1933 to 17,300,000 in 1936 and to 18,370,000 in 1937. The better employment position led to a rise of income from wages and salaries. Tariff rates of wages were no longer maximum rates, as they were during the crisis years, but minimum rates. According to the calculations of the Institute for Research into Economic Fluctuations (*Institut für Konjunkturforschung*) the gross income from wages and salaries of workers, employees, and officials, amounted in the first half of 1937 to 19,010 million RM., which is to be compared with 17,170 million RM. in the first half of 1936.

The increase in economic activity during last year has led to a considerable increase in the consumption of agricultural products, and as this increase in consumption has to be met primarily by home production, one of the main items of agricultural policy was, as previously, the stimulation of production. The market and price policy had also this object in view. Market organisation is on the one hand to provide stable conditions for agriculture and to guarantee the profitability of expenditure made on the "production campaign," and on the other hand to assure a regular supply and to protect the consumer from unjustified increases of prices.

The increase of agricultural production made further progress in 1937. Of the yields of the harvest, that of cereals was as large as in the previous year while that

of hoed crops was much greater than it had ever been. In spite of the large decrease of the import of feeding stuffs the number of livestock further increased. The total agricultural production in Germany, excluding that resulting from imported feeding stuffs, expressed as an index-number (1927-28: 1928-29 = 100) by the Institute for Research into Economic Fluctuations, was 123 in 1936-37.

Such an increase of agricultural production was of course not possible without a large increase in farm expenses. Agriculture was in a position to incur these greater expenses as in the years since 1933 the agricultural market position had continually improved and agricultural prices had been systematically raised. The disparity between the prices of agricultural products and those of agricultural requisites was steadily reduced from year to year and the proceeds of sales received by agriculture rose from 6,400 millions in 1932-33, when they were at their lowest point, to 9,900 millions in 1936-37. However as regards the relation between the proceeds of sales and farm expenses agriculture experienced last year a certain change. While during the previous year the proceeds of sales rose more than did expenses, last year this was not the case. Thus according to the computation of the Official Statistical Office (*Statistisches Reichsamt*) expenses rose in 1936-37 to 335 million RM. while returns on sales, on the other hand, rose only to 163 million RM. Indebtedness, which in the previous years had continually declined, remained therefore in 1936-37 at the previous year's figure.

The level of the prices of agricultural products scarcely changed during the past year; the rise in agricultural prices that took place in the previous years and was considered as an unavoidable factor in overcoming the crisis, has ceased. If the prices of various agricultural requisites, as for example artificial manure, fell, the prices of many others rose, so that the price disparity increased again slightly. It must however be pointed out here that the movements mentioned above relate to agriculture as a whole and that there can be large divergences between the conditions of one branch of production and another. Thus cereal prices have until re-

Relation between Agricultural and Industrial Prices.

(Pre-war period = 100)

Year	Products sold by agriculture	Cereals	Slaughter stock	Industrial manufactured goods	Clothes (1)	Agricultural requisites (2)	Artificial fertilisers
1927	134	137	126	147	163	133	83
1928	130	141	115	159	179	139	82
1929	132	124	128	157	175	141	85
1930	126	111	132	150	161	139	82
1931	107	112	103	136	142	131	77
1932	89	112	75	118	120	116	70
1933	77	96	67	113	116	112	70
1934	84	93	73	116	123	111	69
1935	94	101	83	119	132	111	67
1936	101	104	96	121	137	112	67
1937	100	105	94	125	—	113	—

(1) Textiles and boots and shoes. — (2) Agricultural machinery, implements, carts, lorries and general agricultural implements.

cently been rising, while the price of slaughter stock has been declining slightly since the middle of 1936. Farms concerned mainly with the growing of rye and potatoes were in a fairly good position as the prices of both of these products were raised in the spring of 1937, while farms for which the sale of slaughter cattle is of great importance are those which have been to the greatest degree adversely affected by the changed price situation.

I. — MEASURES AFFECTING MARKETS AND PRICES (1)

The Grain Market.

The grain market was governed in the first half of 1937 by the regulations made in 1936 for the grain year 1936-37. 1936-37 was the fourth year of market regulation; for together with the milk market the grain market was the first to be basically reorganised under the new market policy. The regulations for 1936-37, made at the beginning of July 1936, were only in a few points notably different from those of the previous year. Of especial significance were the stricter control and regulation of the feed-grains market and the quantitative limitation of grain for breweries and distilleries. Thus, among other things, there was a prohibition of the use of winter barley for brewing purposes.

The decline in supply led, however, during the year 1936-37 to a series of further measures to assure the supply of bread-cereals: namely the raising of the coefficient of extraction in milling, the prohibition of the use of bread-cereals as animal feed and of the use of wheat and rye in the manufacture of spirits and coffee substitutes, the exchange of bread-cereals against fodder-cereals on favourable conditions, and, finally, in the last months of 1936-37, an increase of imports. On 4 March 1937 an admixing of maize flour with the output from wheat milling was prescribed. The admixing of maize flour has to take place in all the uses to which the products of wheat milling—flour, coarse meals, etc.—are put; the admixture has to amount to at least 7 per cent. of the total products from wheat milling used and in particular cases is to be between 5 and 10 per cent. From the end of March 1937 an extraction coefficient of 80 per cent. was prescribed for rye. In order to limit from the beginning the use of rye for fodder purposes in the coming year, a decree made as early as 23 March 1937 raised the price of rye during the cereal year 1937-38 to 20 RM. per metric ton.

In June and July several decrees regulating the grain market in 1937-38 were made. By a decree (2) of 26 June 1937 the decree of 10 July 1935 for the regulation of the grain market, which laid down the fundamental principles of the regulation of the grain market, was in certain points modified and extended. This decree considerably extended the duties of the regional grain trade associations and of their head organisation, the Central Grain Office, assigning to them also the duty of regulating and supervising the trade in animal feeding-stuffs and legumes. By reason of the very close connection between the trade in grain and the trade in feeding-stuffs and legumes this unification of the market regulation is easily to be understood.

(1) The development of market regulation in the preceding years has been dealt with from year to year in the seven volumes, published by the Institute up to the present, entitled "The World Agricultural Situation."

(2) *Verköndungsblatt des Reichsnährstandes*, 1937, No. 48.

Previously the trade in feeding stuffs was regulated by various central agricultural offices, namely those concerned respectively with bran and feeding stuffs, with sugar and feeding-stuffs containing sugar, with the brewing industry in respect of brewers' grains, and with the potato trade in respect of potato flakes.

By a further order (1) issued by the Minister for Food Supply and Agriculture, also on 26 June 1937, the prohibition of the use by spirits manufacturers of wheat and rye was extended to other cereals as well—barley, oats, buckwheat, millet, maize, durra and mixtures.

An order (2) issued by the Prices Commissioner and the Minister for Food Supply and Agriculture on 28 June 1937 fixed cereal prices for 1937-38.

Following the above-mentioned orders the Central Office for Cereals and Feeding-stuffs published complete regulations (3) concerning the trade in grain and flour in 1937-38. The new regulations entail a continuation and extension of market regulation, based on past experience and taking account of the existing supply position. Significance attaches above all to the efforts to economise in the use of existing stocks of cereals (the high extraction co-efficient in the milling of bread cereals and the compulsory admixing of maize flour are maintained), to encourage production (by raising the price of rye), and to guarantee a regular supply to manufacturers using cereals as raw materials (anticipation of the monthly price increases; measures against the holding of excessive stocks).

In particular the following of the new measures are especially worthy of attention:

To assure the grain supply each grain producer has to fill a basic quota for his total cereal production (rye, wheat, barley, oats, and mixtures of these grains). Of this total quota a certain minimum must be bread-grains (rye and wheat).

In the case of wheat and fodder barley the new prices are the same as for the crop year 1936-37. The principle of equal monthly price increases was abandoned. The prices rise abruptly shortly after the beginning of the harvest and reach their highest point in the winter months and from April are to be reduced again. By this graduation of prices the disposal of grain at the chief threshing period is to be promoted. The price of rye is similarly graduated but the yearly average price of rye, fixed by the above mentioned order of 23 March 1937, is about 20 RM. per metric ton higher than in the previous crop year. In spite of this the price of rye flour is unchanged; the rise in price is met instead by other branches of the food industry, for example the brewing industry.

The admixing of maize flour is to take place in the future not as previously, at the bakery, but in the mill. Obligatory admixing was moreover extended to rye flour, and from 10 July to 31 October 4 per cent. of maize flour had to be added to rye flour. On 1 November 1937 the use of maize flour for mixing with rye flour was replaced by the use for this purpose of 3 per cent. potato starch meal and 3 per cent. potato meal.

The above mentioned regulation of the cereal trade in 1937-38 was extended by a decree (4) of 22 July 1937 which requires that every producer of bread cereals shall deliver up the whole of his bread cereal harvest (rye, wheat, spelt, and meslin) with the exception of amounts required on the farm for human food and for seed. The basic quota established by the decree of 1 July 1937 was not altered by this provision.

(1) *Verköndungsblatt des Reichsnährstandes*, 1937, No. 48. — (2) *Verköndungsblatt d. R.*, 1937, No. 46. — (3) *Verköndungsblatt d. R.*, 1937, No. 43. — (4) *Verköndungsblatt d. R.* 1937, No. 56.

The Meat Market.

The regulation of the trade in slaughter-stock (cattle, sheep, pigs) and meat in 1938 was newly established by an order (1) made on 20 December 1937 by the Central Livestock Office. In principle the new regulations are similar to those previously in force. A new provision is that the regional livestock associations can fix not only the rates of commission for middlemen but also all other expenses, subject to the approval of the Minister for Agriculture and the Prices Commissioner.

In view of the fact that the development and purposes of the meat market regulation have already been dealt with in *THE WORLD ECONOMIC SITUATION* and in the periodical *Government Measures affecting Agricultural Prices* we have limited ourselves here to a brief summary of the new regulations. The introduction to the new order defines firstly the terms "slaughter-stock markets," "slaughter-stock," and "meat" and sets up standard grades for cattle, sheep, and pigs. Then follow sections containing the provisions in respects of the purchase and sale of slaughter-stock (provisions concerning tenders and acceptances, contracts, and the settling of accounts), the delivery of slaughter cattle, the established prices in and outside the individual slaughter-stock markets, the established wholesale prices for meat; and finally, in a further section, there are provisions relating to industrial undertakings concerned with slaughtering of stock and the selling or use for manufacture, of meat, and regulating the delivery of meat and farm slaughtering. The prices fixed were partly revised subsequently.

The Milk Market.

Since September 1936 there have been restrictions on the production and sale of whipped cream and also on the production of various kinds of cheese. The object of these measures was on the one hand the increase of butter production and on the other hand the checking of the large increase in the production of cheese which occurred in the preceding years. The production of butter and cheese is shown in the following figures:

Year	Butter	Cheese		
		Hard cheese	Soft cheese	Curd cheese
Thousands of metric tons				
1933	425	508	753	783
1934	424	503	692	942
1935	430	547	704	1,076
1936	445	742	777	1,399

The Oilseeds Market.

As in the preceding years a relatively high price was guaranteed to oilseed growers in 1937-38. The oil mills received a compensatory grant in respect of oilseeds taken over at these prices. The producers' price for rapeseed, colza, and linseed was fixed at 32 RM (2).

(1) *Verköndungsblatt des Reichsnährstandes*, 1937, No. 86. — (2) *Verköndungsblatt d. R.*, 1937, No. 48.

The Hops Market.

By an order (1) issued on 23 February 1937 by the Central Office of the German Brewing Industry the establishment of new, or the extension of old, hop gardens, and even the replacement of existing gardens, without the consent of the Office was forbidden until further notice. The hop gardens outside the established regions of cultivation were to be cleared by 1 December 1937. Further, within these regions the area under hops in 1937 was to be diminished by 1,500 hectares.

Other Markets.

Further measures taken last year concerned egg, wine, fish, seed, and other markets. No fundamental changes were however made; the organisation of market regulation by means of price fixing was extended in respect of hops, raw oil, food fats, and vegetable fat acids.

It has not been possible to give here a complete account of the measures taken, but we have sought to show the many-sidedness and the tendencies of the measures concerned with for market regulation.

II. — MEASURES AFFECTING AGRICULTURAL ECONOMY IN GENERAL

Stimulation of Agricultural Production.

The measures taken to increase agricultural production concern both foodstuffs and raw materials for industry such as oilseeds, flax, wool, hemp, wood. The possibilities that still exist of extending home production without incurring the danger of exceeding market requirements are partially indicated by the following figures: it was estimated that the proportion of the total consumption covered by home production was in 1936 81 per cent. in the case of food-stuffs and fodder, 47 per cent. in that of raw materials derived from agriculture, and 75 per cent. in that of the total of agricultural products (2). Naturally, among the deficient products there are many which by reason simply of climatic conditions cannot be produced in Germany, but on the other hand there are many that can be so produced. Various measures of especial importance, other than those concerned with the permanent improvement of agricultural instruction and advice, have been taken to increase agricultural production.

On 16 June 1937 an order was issued for the carrying out of the law on the consolidation of holdings. The object of this order, which took the place of more than fifty, partly out-of-date, state regulations, and thus unified the regulations for the whole of Germany, is the simplification and expediting of the process of consolidation. In many parts consolidation is a condition precedent for further intensification in agriculture. The total area of estates that are excessively subdivided and need to be consolidated is stated to be about 6,000,000 hectares.

(1) *Verköndungsblatt des Reichsnährstandes*, 1937, No. 12. — (2) *Verköndungsblatt d. R.* 1937, No. 45.

Reduction of the Prices of Artificial Manures. — A noteworthy reduction of costs of production was obtained by the reduction of the prices of artificial fertilisers. A ministerial order of 23 March 1937 lowered by 30 per cent. with retroactive effect from 1 January 1937 the prices of nitrogenous fertilisers, with the exception of calcium nitrate. The rebates resulting from the retroactive effect took the form of gratuitous deliveries of fertilisers. The prices of potassium fertilisers have been lowered by 25 per cent. from 16 May 1937. Further, the railway rates for the transport of lime have been lowered. The reductions mentioned above have the effect, calculated on the basis of the use of artificial manure by German agriculture in recent years, of reducing expenses by 120-150 million RM. The use of chemical fertilisers since 1931-32, the year when it was at its lowest point during the crisis, has been of the following order:

Year	Nitrogen (N)	Phosphoric Acid P ₂ O ₅	Potash (K ₂ O)	Lime
(In thousands of metric tons net)				
1931-32	325.3	395.1	540.7	...
1932-33	351.0	399.0	615.7	1.072
1933-34	382.0	462.0	713.5	1.345
1934-35	425.0	545.0	816.6	1.350
1935-36	491.0	636.0	940.0	1.561
1936-37 (1)	570.0	606.0	941.0	1.553

(1) Provisional.

Improvement of Agricultural Land. — In 1937 about 200 million RM. were allotted to the improvement of agricultural land. In the following years the sum is to increase gradually until it reaches 300 million RM. in 1940. The money is to be used above all to encourage draining, the bringing into cultivation of uncultivated land, the consolidation of holdings, and the transformation of bad grassland into arable land and pastures.

Increasing Fodder Production. — These measures are closely associated with others concerned with increasing fodder production, which is the most important condition for the increase of stock-farming. The large dependence on foreign supplies for fodder is to be reduced. The degree to which the reduction of the volume of fodder imports has already taken place is shown in the case of the supply of oil-cake, the imports of these having fallen from 2,290,000 tons in 1932 to 1,540,000 tons in 1934, and to 1,060,000 tons in 1936.

Particular attention is given to the increase of production from pasture and meadow lands. In this case undoubtedly smaller progress is to be recorded than in the case of arable farming. Thus there are now still relatively larger reserves of production from pasture and meadow lands, which are to be utilised. The importance of an increase in production from pasture and meadow land is to be seen simply from the fact that of the total area of agricultural land in use in Germany, about 30 million hectares, about 9 million hectares is pasture and meadow.

The encouragement of better conservation of forage crops is also of importance. Thus with the aid of subsidies the space available for silage was increased from 2,300,000 million cubic metres in 1937 to 5,000,000 in 1936.

As a result of these measures it was possible, in spite of a reduced import of feeding stuffs, to bring the number of stock up to a record high figure.

Testing of Milk Yields. — In the case of milk, the introduction of obligatory testing of milk yields has also had a large importance as can be seen from the following figures: in 1935 there were in Germany 4,293 associations testing a total of 1,400,000 milch cows, about 14.3 per cent. of all the milch cows in the country. While the average yield per cow for all cows in Germany was calculated to be 2,346 litres, the average per cow tested was 3,509 litres. At the end of 1936 more than a third of the total number of milch cows was already under the system of yield tests.

Plant Protection. — By a law (1) of 5 March 1937 the system of plant protection was revised. The law is concerned in particular with combating plant disease and deterioration, the prevention of the introduction of disease from abroad, the organisation of plant protection, the rights and duties of those concerned, and possible compensations.

Campaign against Waste. — Finally there may be mentioned, among the measures for the increase of agricultural production, also the action taken under the name of "Campaign against waste" (*Kampf dem Verderb*), with a view to restricting losses in the gathering of harvests, and in the preservation, transport, and processing of agricultural products.

The Setting-up of a Uniform Tenancy Agreement.

Even if the larger part of the agricultural land in use in Germany is worked by occupying owners, the area worked by tenant-farmers is nevertheless not insignificant; it amounted in 1935 to 4,460,000 hectares out of a total area in use of 41,570,000 hectares. In order to guarantee an increase of production of the desired degree, also in the case of land worked by tenant-farmers, and above all to make possible expenditure yielding long-term returns, the Agricultural Corporation of the Reich has set out the main lines to be followed throughout the whole of Germany in farm tenancy arrangements, and has provided a specimen agreement. The uniform tenancy agreement provides among other things for a period of lease of 18 years in the case of farms and 9 years in the case of allotments.

Agricultural Labour.

As a result of the elimination of unemployment the questions of agricultural labour has again become important. In wide areas the shortage of agricultural labourers has made itself acutely felt. Apart from the raising of wages, which according to official estimates have risen to about 50 per cent. above those of 1934-35, and the extension of social institutions, it has been sought to retain the labourer by lengthening the labour contract period and by providing better housing conditions. 44,000,000 RM. of state funds were allocated to the construction of dwellings for agricultural labourers. Further means were provided by the State Office for Labour Settlement and Unemployment; from the beginning of October 1935 to October 1937 the Office assisted in the building of 22,000 dwellings for agricultural labourers. To eliminate the bad effects

(1) *Verköndungsblatt des Reichsnährstandes*, 1937, No. 21.

of the shortage of labour further help was granted for the purchase for general use of machines for cleaning and disinfecting seeds and of clothes washing establishments. Finally foreign workers were brought; in 1937 these numbered about 58,000 and in 1938 there will be, it is estimated, about 200,000.

Of significance for the future is, finally, the regulation (1) made by the Agricultural Corporation (*Reichsnährstand*) for the training of agricultural labourers, the object of which is both the forming of a body of efficient agricultural workers and the improvement of the social position of the agricultural labourer.

The Revision of the Laws on the Inheritance of Peasant Property (Erbhofrecht).

The law of the 29th of September 1933 concerning the inheritance of peasant property not only established a uniform system for the whole of Germany but set up in several parts of the country entirely new conditions. Clearly not all the questions of inheritance could be regulated at one time. The law consequently provided for alteration and extension of the legal provisions in the light of practical experience. The inheritance law was put into effect by three orders (19 October 1933, 19 December 1933, 27 April 1934); an order of 24 July 1934 provided for the payment of a salary to the peasant assessors of the peasant inheritance courts; and on 4 June 1936 there was an order concerning the keeping of registers of hereditary peasant farms. These orders were, on 21 December 1936, abolished; their content, amended in the light of actual experience, was combined in two new orders, both issued on 21 December 1936, the first dealing with the law of peasant property, and the second with procedure.

IRELAND

To a large extent the economic crisis, which affected Ireland no less strongly than most other countries, has already passed. This has been due in part to the general economic revival that has taken place throughout the world and in part to the efforts of the Government to foster industries and, at the same time, to give relief to agriculture. The increased prosperity of the farmers is also due to the trading agreements between the United Kingdom and the Ireland by which, since the beginning of 1935, the restrictions imposed upon imports into the United Kingdom of Irish products, and more particularly of fat cattle, have been partially removed.

The conditions of external trade have improved in recent years. The balance of trade is always very unfavourable, but the excess of imports over exports (plus re-exports) diminished between 1934 and 1936. It increased again during the first eleven months of 1937, but it must not be concluded that a heavy drain of capital is taking place, as the country is in a very strong creditor position, and the invisible exports probably compensate almost completely for the excess of imports over exports.

The price index number for all agricultural products (1911-13 = 100) rose from 83.4 in 1935 to 90.6 in 1936 and to 104.3 in 1937. The prices of agricultural requisites also rose, but to a much slighter extent.

(1) *Verköndungsblatt des Reichsnährstandes*, 1937, No. 82.

MEASURES AFFECTING MARKETS AND PRICES.

Encouragement of Wheat-growing.

The encouragement given to wheat-growing by the Agricultural Produce (Cereals) Act, 1933, resulted in a very considerable increase in the acreage under wheat and in wheat production up to 1936, but there was a slight falling-off in 1937. The following table shows the acreage and production in each year from 1932 to 1937:—

	Area under wheat (acres)	Production of wheat (cwt.)
1932	21,388	445,000
1933	50,491	1,063,000
1934	93,817	2,038,000
1935	163,473	3,582,000
1936	254,521	4,200,000
1937	220,263	3,744,000

The increase in home production made it possible to increase the percentage of home-grown wheat that the millers were required by Orders made under the Act to employ in milling. For 1934-35, it was fixed successively at 8 per cent., 10 per cent., and 10.75 per cent.; for 1935-36, it was first fixed at 25 per cent. but afterwards reduced to 21.5 per cent.; for 1936-37, it was first fixed at 33 $\frac{1}{2}$ per cent., was reduced to 26.5 per cent., but afterwards raised to 29 per cent.; for 1937-38 it was first fixed at 40 per cent., but has since been reduced to 24 per cent.

Under the Act of 1933, bounties were paid for home-grown millable wheat, the bounty being based on the difference between the ascertained average price paid for home-grown wheat and a fixed standard price. By an amending Act passed in 1935, the bounty system was replaced by a system of guaranteed minimum prices which, it was provided, should be not less than the standard price previously established. Minimum prices are still in force, but the rise in wheat prices has been such that the prices actually received by the growers are appreciably higher than the minimum prices fixed.

The Marketing of Pigs.

The Pigs and Bacon Act, 1935, provided for the establishment of a Pigs Marketing Board to fix the prices of pigs and of a Bacon Marketing Board to allocate the production of bacon among the curers. In June 1937 an amending Act—the Pigs and Bacon Act, 1937—was passed. Its principal object was to eliminate the minor bacon producers, and provision was made for paying compensation to such producers.

In the fixing of prices to be paid to producers—the “appointed” prices—the pigs and carcasses are divided into three categories. Live pigs sold to curers at fairs and markets; live pigs delivered to factories, to be paid for after slaughter, per cwt. dead weight; pork carcasses. Live pigs sold to curers at fairs and markets are divided by weight into three classes. Live pigs delivered to the factory are also divided by weight into three classes but each class is further divided into three grades. Carcasses of pigs not purchased by a bacon factory are divided by weight into four classes.

The first scale of prices fixed after the passing of the Act of 1937 came into force on 26 July. Compared with the prices in force just before that date, the new prices showed a fall of approximately 3s. per cwt., dead weight, and of approximately 6d. per cwt., live weight. Revised scales of prices were fixed with effect from 30 August, 11 October and 13 December 1937.

Levies and Bounties on Dairy Products.

The Dairy Produce (Price Stabilisation) Act, 1935, is still in force, but has lost much of its importance owing to the rise in the prices of dairy products (notably butter) in the United Kingdom. Under this Act, levies were raised on home sales of butter and other products and bounties were paid on products exported. In the case of butter, a special subsidy was also paid out of moneys voted by the Dail; this subsidy was at such a rate as would bring the total export value of the butter (that is, price received, less British import duty and transport charges, plus export bounty and subsidy) approximately to the value on the home market (that is, the minimum price, as fixed by the Minister of Agriculture in the exercise of powers conferred on him by the Act of 1935, less the levy collected upon it). The levies and bounties on dairy products other than butter had the twofold object of equalising export and internal prices and of providing that the net return from milk used in the manufacture of such products should be as nearly as possible equal to the net return from milk used in butter manufacture.

The rise in prices made it possible greatly to reduce the levies on creamery butter and cheese and to remove the levy altogether for non-creamery butter. The bounties on butter were drastically reduced as from the beginning of May 1937.

In 1936 it was the aim of the Government to secure to the creameries a net average price of 106s. per cwt. Owing to the improvement in prices on the British market, however, the creameries actually received in 1936 a net average price of 114s. 10d. per cwt. For 1937 the Government guaranteed a net average price of 112s. per cwt. on exported butter as well as on butter sold on the home market, but, in fact, the creameries received a substantially higher net average price.

Changes in Export Bounties.

Fat Cattle. — As from February 1936, when a revised trading arrangement with the United Kingdom came into force, the export bounty of £1 per head previously paid on fat cattle was discontinued and no bounty was paid until 1 January 1938. From that date, however, a bounty of 30s. per head has been paid; it will continue to be paid until 15 June 1938.

Pig Products. — A change was made, as from 16 August 1937, in the bounty payable on pig products exported to countries other than the United States. (No bounty is paid on exports to the United States as that country imposes a compensatory duty on subsidised imports). The new rates were 16s. per cwt. on bacon, cured hams and other cured pigmeat; 12s. per cwt. on pork, and 5s. on offals. The previous rates were 18s. per cwt., 14s. per cwt. and 5s. per cwt. respectively. As from 25 October 1937 the bounty on pork was raised to 15s. per cwt.

Offals of Sheep and Lambs. — Since 31 October 1937 no export bounty has been payable on offals of sheep and lambs; the bounty previously paid was 20s. per cwt.

Turkeys. — From 3 December 1937 to 31 January 1938 a bounty of 3d. per lb. was paid on dead turkeys exported. The bounty previously paid was 2d. per lb.

Eggs. — The rates of bounty on eggs in shell exported to the United Kingdom were increased, with effect from 25 October 1937, as follows: Extra selected, from 3*d.* 2*d.* to 4*s.* per great hundred; medium, from 2*s.* 6*d.* to 3*s.* 10*d.*; duck from 2*s.* 6*d.* to 3*s.* 10*d.*; pullet, to 2*s.* 6*d.*

Distillation of Alcohol from Potatoes.

In order to provide a further outlet for the disposal of potatoes, the Government decided in 1935 to erect five alcohol factories for the distillation of alcohol from potatoes. Delays occurred in carrying out this decision and it was only on 9 December 1937 that the first alcohol factory was formally opened at Labbadish in the County of Donegal. It was stated that the factory would be able to turn out 660 gallons of 100 per cent. pure alcohol each day, as well as 6,600 gallons of wash suitable for cattle-feeding. When the potato supply failed the factory could produce alcohol from barley, oats or sugar beet.

SWITZERLAND

A little more than a year has passed since the Federal Council devalued the Swiss franc. It is hard to judge the effects of this action as it coincided with a clearly marked recovery in the world economic situation. The increase in exports has not balanced the increased cost of imports as is shown by the following figures:—

Exports and Imports of the Most Important Agricultural Products during the First Three Quarters of 1936 (before the Devaluation) and the First Three Quarters of 1937 (after the Devaluation).

	Imports					
	Volume			Value (thousands of Swiss francs)		
	From 1 January to 30 Sept- ember 1936	From 1 January to 30 Sept- ember 1937	1937 as a percentage of the 1936 figure	From 1 January to 30 Sept- ember 1936	From 1 January to 30 Sept- ember 1937	1937 as a percentage of the 1936 figure
Cereals (thousands of quintals)	6,108	7,253	119.0	75,977	144,564	190
Fruit and vegetables (thousands of quintals)	1,699	1,765	104.0	52,129	59,216	114
Wine (hectolitres)	70,208	70,514	100.5	1,715	2,077	121
Animals (head)	47,633	95,894	201.0	7,525	20,749	276
Eggs (quintals)	98,213	111,624	114.0	9,009	12,838	143
Milk (quintals)	76,404	72,459	95.0	1,419	1,676	118
Butter (quintals)	6,887	22,880	332.0	1,182	4,521	382
Cheese (quintals)	10,246	11,649	114.0	1,537	2,061	134
Fertilisers (thousands of quintals)	1,285	1,383	108.0	5,991	8,058	134
Fodder (thousands of quintals)	259	624	241.0	3,283	9,802	298

	Exports					
	Volume			Value (thousands of Swiss francs)		
	From 1 January to 30 Sept- ember 1936	From 1 January to 30 Sept- ember 1937	1937 as a percentage of the 1936 figure	From 1 January to 30 Sept- embre 1936	From 1 January to 30 Sept- embre 1937	1937 as a percentage of the 1936 figure
Cereals (thousands of quintals)	19.9	19.5	98	1,716.0	2,002.0	117
Fruit and vegetables (thou- sands of quintals)	35.4	100.3	283	703.0	1,184.0	169
Wine (hectolitres)	155.0	174.8	113	20.0	22.0	114
Animals (head)	5,017.0	4,340.0	87	3,049.0	2,605.0	85
Eggs (quintals)	3.7	14.5	392	0.7	2.2	304
Milk (quintals)	42,684.0	44,332.0	104	3,120.0	3,558.0	114
Butter (quintals)	15.2	19.2	126	5.6	7.8	140
Cheese (quintals)	167,686.0	149,890.0	89	29,653.0	33,129.0	112
Fertilisers (thousands of quint- als)	147.1	193.2	131	1,259.0	2,072.0	165
Fodder (thousands of quint- als)	38.9	44.6	114	237.0	445.0	188

The export of cheese profited by the changes in the foreign exchange market, but the restrictive measures taken by the importing countries have checked its increase. The slackening off is due above all to the closing of the German market. The export of cattle has declined. The exports of fruit and vegetables go in large part to countries which have also devalued their currencies so that the increase in the receipts is not proportional to the increase in the quantities sold. Swiss agriculture, which received, in terms of gold francs, relatively less in 1937 than in 1936, has to spend more on its purchases from abroad.

In order to stop the free formation of prices and to prevent their rising too rapidly, the Federal Council created on 27 September 1936, immediately after the devaluation, a Price Central Office. The index of the prices of agricultural products, which was eight points higher in September 1936 than in 1935, gained only five points in the following twelve months.

Index-numbers of Prices (1914 = 100).

	1935	1936	Sept- ember 1936	April 1937	Mai 1937	June 1937	July 1937	August 1937	Sept- ember 1937
General index-numbers of the prices of agricultural products	110	116	118	122	122	122	122	123	124
Index-numbers of wholesale prices	90	96	97	113	113	112	112	111	110
Cost of living, total. . . .	128	130	130	137	136	137	137	137	137

To prevent the devaluation from causing an excessive rise in commodity prices, the Government took numerous measures in 1937.

MEASURES AFFECTING MARKETS AND PRICES

The Milk Market.

Having received favourably the request of the Central Union of Swiss Milk Producers for an increase in the basic price of milk, which no longer covered the costs of production, the Federal Council on 9 February 1937 sent to the Federal Assembly a communication concerning the necessity of giving assistance to the milk producers, and on 18 March 1937 the Federal Assembly put at the disposal of the Federal Council, in order to allow it to mitigate the effects of the agricultural crisis and to support the price of milk: (a) the net profits of the Swiss Central Butter Supply Organisation (Butyra), including the yields of the supplementary import duties imposed on butter, according to the instructions of the Federal Council, during the period 1 May 1937 to 30 April 1939; (b) the amount of the dues on milk for consumption (crisis tax) payable from 1 May 1937 to 30 April 1939 by milk producers not members of a dairy organisation; (c) the yield of the surtaxes imposed from 1 May 1937 to 30 April 1939 on feeding stuffs. If these amounts are insufficient the Federal Council is authorised to grant to the Central Union of Swiss Milk Producers subsidies which are to be taken from the general receipts of the Confederation and which can reach a maximum figure of 5 million francs. The third of the yield of the surtaxes imposed on feeding stuffs is put at the disposal of the Federal Council in order to allow it to mitigate the effects of the agricultural crisis, particularly in the mountain districts; the Federal Council is authorised to reserve, should it be necessary, one million for the benefit of farmers in difficulties. (2)

On 13 April 1937 the Assembly of the delegates of the Union of the Swiss Milk Producers fixed as follows the basic prices per kilogramme of milk delivered to the collecting centre; 20 centimes for milk for consumption (including half a centime to be paid to the guarantee fund); 20 centimes for milk for manufacturing purposes, when returned to the producers; 18 $\frac{3}{4}$ centimes for milk for manufacturing purposes, when returned to the producer; 17 $\frac{1}{2}$ centimes for milk for manufacturing purposes, skim milk returned to the producer. It fixed at 224-234 francs per 100 kg. the price of Emmentaler cheese of first quality for export.

To prevent the rise of 2 centimes in the basic price for milk paid to the producer from leading to an increase of more than 1 centime in the price for milk paid by the consumer, the Federal Council issued on 23 April 1937 (3) an order according to which whoever sells milk directly to customers shall pay a due of half a centime per kg. of milk delivered for consumption, the litre being considered equivalent to a kilogramme. Also subject to this due are producers who supply milk for consumption to public institutions which they themselves run, to the owner of land which they rent, to their own tenants or to relations, as well as importers of foreign milk.

Another order relative to the limiting and improving of milk production was issued on 30 April 1937 by the Federal Council. While milk federations have to demand from the producers milk of first quality, the farmers are required to limit the number of their cattle, especially of their milk cows, according to the output of natural fodder on their farms.

These two orders will remain in force until 30 April 1939.

(1) *Feuille fédérale*, No. 6 (10 February 1937). — (2) *Recueil des lois fédérales*, No. 11 (24 March 1937). — (3) *R. L. F.*, No. 16 (28 April 1937).

The price supplements in respect of feeding stuffs have been twice modified, on 29 June and on 28 September 1937 (1): the price supplement in respect of hay, oil-cake and flour, fodder barley, ground-nuts for the extraction of oil, malt, potato flakes, copra, have been increased; price supplements in respect of flaxseed for the extraction of oil, meat meal for stockfeeding, have been reduced.

It is to be pointed out also that the compensation tax on imported milk was repealed on 8 February 1937 by an order of the Federal Department of Public Economy (2).

The Live Stock Market.

Swiss tariff duties impose on imported slaughter stock price supplements which serve to favour the returns on, and the export of, live stock, and to reduce the difference existing between the prices of home-bred stock and those of imported stock. The price of home-bred stock is not affected by the import of dairy cattle and breeding stock which has for many years been forbidden. The export of dairy cattle and breeding stock is only possible if supported by high subsidies.

In 1937 the exporting of breeding-stock was less active than in 1935, but it was still sufficient to prevent a fall in prices.

Further, the Federal Department of Public Economy has taken measures to encourage the sale of live stock in the country. The Order of 4 August 1937 (3) grants extraordinary subsidies to the stockbreeding syndicates for the bulls bought at ordinary sales. The bulls must be the property of the syndicates. Subsidies are payable in respect of bulls of less than two years whose good ancestry is established by the certificate of pedigree and productivity and by the metal mark. Further the right to the subsidy is subject to the delivery of the service record and to the allocation of cash bonuses. The Federal subsidy is calculated according to the purchase price attested by the receipt and to the size of the Cantonal bonus, and is: (a) 15 per cent. of the purchase price after deducting 500 francs; (b) supplement equal to the size of the Cantonal bonus. The size of the Federal subsidy must not however be less than 150 francs nor greater than 350 francs per bull. For the mountain syndicates the Federal subsidy is increased by 50 per cent.; it will not be less than 180 francs nor greater than 500 francs per bull. As a general rule no Federal subsidy will be paid in respect of syndicates' bulls for which less than 1200 francs was paid.

The provisions in respect of bulls govern, in principle, the granting of subsidies for the purchase of rams and goats. The total amount of the subsidy must not be less than 15 francs nor greater than 35 francs per head. For the mountain syndicates it will be increased by 50 per cent.; it will not be less than 22.50 francs nor greater than 50 francs.

With a view to promoting the sale of cattle at the large bull shows organised in August, September, and October, by the Federations of the breeding syndicates, the Confederation will defray three quarters of the transport costs by railway within the country. It will also pay 75 per cent. of the cost of transport of the animals bought at the markets for sheep, pigs, goats, etc.

In order to promote the sale of cattle and goats, for breeding, dairying, and slaughter purposes bought in the mountain stockbreeding districts, the Confederation de-

(1) *Recueil des lois fédérales*, No. 25 (30 June 1937) and No. 34 (8 September 1937). — (2) *R. L. F.*, No. 6 (10 February 1937). — (3) *R. L. F.*, No. 30 (4 August 1937).

frayed 50 per cent. of the cost of transport of animals sold and despatched between 23 August and 30 November 1937. At certain times subsidies will be granted to diminish the costs of transport of slaughter sheep sent from mountain regions to consumption centres.

It may be added that the pig import quota, which was established in 1936, has resulted not only in preventing the collapse of pig prices, but also in allowing a recovery in the prices of other animals.

In order to promote the export of breeding-stock and dairy cattle of good quality the Federations of breeding syndicates are authorised by the Order dated 4 August 1937 of the Department of Public Economy (1) to grant to exporters subsidies to an amount equal to 20 per cent. of the purchase price as shown on the receipt for bulls, cows, and heifers, bought and exported during the period from 23 August to 30 November 1937. These subsidies will not exceed 240 francs per animal. A special supplement which can amount to a maximum of 30 francs per head will be allotted to exporters in respect of bulls bought at the large markets for direct export. As a general rule the subsidies will be calculated on the price paid to the breeder or the first seller who is required to indicate on the receipt the price he has received and to attest the accuracy of this indication by appending his signature. If the animal is resold at a higher price, with a view to export, by a second or third buyer, a trade profit can be put into the account in the calculation of the subsidy. But in no case will the subsidy be greater than the price actually received by the exporter.

Cattle and goats exported by railway can be transported free of charge to the frontier, if properly loaded.

All the exports of live stock for which a subsidy is claimed will be checked. The checking will be of the quality of the stock and the prices. The subsidies will be paid to exporters through the agency of the offices concerned, on the basis of the purchase receipt.

By a decree dated 20 February 1937 (2) the Federal Council has made obligatory the marking of animals of foreign origin; it must be carried out by the meat inspectors immediately after the animals are slaughtered. Imported meat must be marked by frontier veterinaries at the entrance customs offices.

The Decree made by the Federal Council on 25 June 1937 (3) authorises only limited quantities, corresponding to the needs of the country, of imports of draught-horses. The quality of the horses is checked by the veterinary office.

The Grain Markets.

It is well known that the Swiss farmer receives for his wheat prices exceeding by 8.50 francs those of the world market; these prices, which are free at the frontier, duties paid, have to amount to not less than 36 francs nor more than 45 francs. Now the prices on the world market having risen, the Federal Council by a decree dated 24 August 1937 (4) fixed as follows the purchase prices of home-grown wheat of the 1937 harvest: standard I ("bearded Trochet," "bisnacht," "mont-calme," etc.) 36 francs per 100 kg., standard II ("alpha," home-grown Manitoba, "nostrano," Plantahof," etc.) 37.50 francs per 100 kg.; standard II ("Huron") 38.50 francs per 100 kg. The price of rye has been fixed at 28.50 francs.

(1) *Recueil des lois fédérales*, No. 30 (4 August 1937). — (2) *R. L. F.*, No. 8 (24 February 1937). — (3) *R. L. F.*, No. 25 (30 June 1937). — (4) *R. L. F.*, No. 32 (25 August 1937).

With a view to assuring the provisioning of the country, the Federal Government keeps reserve stocks of bread-making cereals (wheat, rye and spelt,) which must amount to about 80,000 tons. Commercial flour mills are legally bound to store on behalf of the Federal Government, free of charge, a total of 40,000 tons of wheat. The quantity of wheat to be stored by any commercial mill is fixed at the beginning of each year, in proportion to the quantity of bread-making wheat milled by it during the previous year. The Wheat Office, in a special schedule of charges, establishes all the regulations concerning the renewal of the Federal reserve stocks stored by the mills, and the millers, when signing the schedule, have to furnish sufficient guarantees for the execution of the duties imposed upon them by the Federal Decree of 22 June 1929 concerning the provisioning of the country wheat. These guarantees (*sûretés*) are in proportion to the importance of the mills and take the form of deposits of cash, of the pledge of absolutely safe and easily marketable securities of a grantee by a bank approved by the Wheat Office or, finally, by a guarantee of associations.

By a decree dated 14 September 1937 (1) the Federal Council modified the administrative rules of the federal law concerning the wheat supply of the country. The amount of the guarantee fund which is equal to the value of the obligatory wheat reserve must reach at least one thousand francs: it will be fixed each year and for each mill on the basis of the average price of Manitoba II wheat during the preceding nine months.

Finally on 5 November 1937 (2) the Federal Council made a decree concerning the allocation of an indemnity to millers making integral wheat flour, in order that they may be duly compensated for any loss which they may incur through the reduction of the price of flour and bread. The amount of the indemnity is fixed periodically by the Department of Public Economy according to the conditions of the market for bread cereals.

The Fruit Market.

The fruit harvest was very abundant in 1937. It not being possible for the export of cider apples to be sufficiently large the Federal alcohol monopoly sought, in co-operation with the cantonal offices for fruit cultivation, to arrange for their sale within the country and to organise storage with a view to later delivery.

A law of 24 August 1937 (3) authorises the alcohol monopoly to encourage by subsidies the export of table fruits, cooking fruits, and cider fruits; the transformation of surplus fruit into products easily conserved; the supply of the poor and the mountain population with fresh fruit. It is also authorised to grant subsidies not exceeding 2.50 francs per 100 kg. of fruit to farmers and cider manufacturers who prove that the producers have obtained prices between 3.50 francs and 4.25 francs per 100 kg. for cider apples or perry pears in bad condition and 4.50 francs to 5 francs per 100 kg. for sound apples in good conditions, in respect of fruits used for making cider or perry for consumption.

The alcohol monopoly organised the purchase and transport of home-grown potatoes; it is authorised to grant subsidies for the transport of such potatoes. To obtain the right to subsidies an applicant must be able to show that the producer has received basic prices of 7.50 francs to 10 francs per 100 kg.; these prices are increased by 50 centimes per 100 kg. to cover loss in and costs of storing, if the

(1) *Recueil des lois fédérales*, No. 35 (15 September 1937). — (2) *R. L. F.*, No. 43 (10 November 1937). — (3) *R. L. F.* No. 32 (25 August 1937).

potatoes are delivered after 15 November, by 1 franc 50 centimes if they are delivered after 1 January 1938, and by 2.50 francs per 100 kg. if they are delivered after 15 March 1938.

The Federal Council has fixed the method of the repayment of fiscal charges on alcoholic products exported during the period 1 July 1936 to 30 June 1937 (Decree of 7 September 1937) (1). On 14 October 1937 it made a decree concerning the transformation of fruit cultivation (2): the alcohol monopoly and the Agriculture Division are authorised to take, during the winter of 1937-38 and the spring 1938, measures to adapt the orchards to the cultivation of table fruit and good cider fruit. The alcohol monopoly is authorised to grant subsidies to promote the improvement of orchards and regrafting. A credit of 300,000 francs has been opened of which 225,000 franc will go to the alcohol monopoly and 75,000 to the Agriculture Division.

The import of fresh fruit, trees, shrubs, plants, and parts of plants was regulated by a decree of the Federal Council issued on 5 June 1937 (3): each consignment must be accompanied by a certificate issued by the plant protection office of the country of origin.

Imposition of Tariff Duties.

On 19 January 1937 the Federal Council reimposed the tariff duties on fresh vegetables. Customs duties on cabbages, carrots, and edible onions, have been fixed at 3 francs per 100 kg., the duties on tomatoes at 5 francs; the duties on other fresh vegetables, including artichokes, asparagus, gherkins, beans, of Southern origin green peas, and truffles, at 10 francs (4).

The customs duties on grapes and fruits have been reimposed (Decree of 31 August 1937) (5).

The Federal Council on 5 November 1937 reimposed the tariff duty on eggs and fixed it at 15 francs per quintal (6).

Wholesale and Retail Prices.

By an order issued by the Federal Department of Public Economy on 20 September 1937 (7), the wholesale and retail prices of all goods can after 27 September 1937 be freely fixed without the authorisation of the Federal Department of Public Economy or bodies designated by it. Still subject to official authorisation are increases in the prices of bread, milk and milk products of Swiss make, bullock beef and heifer beef, leather and raw hides, building timber, house and farm rents.

An order of 27 September 1937 (8) prohibited increases in the retail prices existing at that time.

Clearing Agreements.

Clearing agreements have been concluded with Germany Poland, Hungary, Romania (Decrees of the Federal Council of 2 July, 20 April, 10 February, 24 March 1937) (9).

(1) *Recueil des lois fédérales*, No. 34 (8 September 1937). — (2) *R. L. F.*, No. 40 (20 October 1937). — (3) *R. L. F.*, No. 22 (9 June 1937). — (4) *R. L. F.*, No. 3 (20 January 1937). — (5) *R. L. F.*, No. 33 (1 September 1937). — (6) *R. L. F.*, No. 43 (10 November 1937). — (7) *R. L. F.*, No. 36 (22 September 1937). — (8) *R. L. F.*, No. 37 (29 September 1937). — (9) *R. L. F.*, No. 26 (7 July 1937), No. 6 (10 February 1937) and No. 16 (28 April 1937).

MONTHLY BULLETIN

OF

AGRICULTURAL ECONOMICS AND SOCIOLOGY

1938

No. 3

THE ECONOMIC OR SOCIAL INCOME OF AGRICULTURE AND THE VARIATIONS THEREIN FROM 1932-33 TO 1933-34.

III.

SUMMARY: The Government measures, crop returns, agricultural production, returns, expenditure, social income, the composition of this last: (a) in Estonia; (b) in Latvia; (c) in Lithuania; (d) in Poland. Agricultural conditions and the social income in Czechoslovakia. Conclusions.

In a previous article, an enquiry was made into the variations occurring from 1932-33 to 1933-34 in the economic or social income of farms mainly engaged in crop production in a certain number of European countries. A study will now be undertaken of the variations occurring from 1932-33 to 1933-34 in the economic or social income of farms mainly so engaged in Estonia, Latvia, Lithuania, Poland and Czechoslovakia.

Estonia.

In spite of the measures taken by the Government for the assistance of the farming classes—reduction in the money rent, imposition of customs duties, import licenses, strict control of exports—the profitability of farming was less in 1932-33 than in 1932-31. During this period prices of agricultural products continued to fall; harvests were poor; the scarcity of forage reduced the volume of the milk production.

In 1933-34, the prices of the chief agricultural products advanced:

Prices in Crowns.

	in 1932-33	in 1933-34
Rye (per quintal)	14.1	12.0
Wheat (per quintal)	19.4	19.1
Barley (per quintal)	14.3	18.3
Oats (per quintal)	9.8	10.9
Potatoes (per quintal)	2.4	2.4
Butter for export (per 100 kg.).	99.7	126.0
Beef (per 100 kg.).	26.9	30.8
Pigmeat (per 100 kg.).	50.3	61.7

TABLE I. — *Social Income, Gross Return and*

DESIGNATION	Number of farms	Average area ha.	Live stock production				Crop produc- tion	
			Cattle		Pigs	Other animals		
			Breeding stock; slaughter stock, etc.	Milk and milk products				
								1
Estonie:								
The whole country . . . 1931-32	300	37.48	4.62	29.94	10.94	9.45	27.90	
Viru 1932-33	40	29.24	3.56	20.06	10.85	9.60	33.83	
1933-34	32	27.25	5.11	26.16	14.40	11.02	34.42	
Järva 1932-33	35	35.74	3.33	16.45	11.15	8.49	28.00	
1933-34	45	31.79	4.14	21.41	12.37	9.96	26.55	
Harju 1932-33	24	35.74	3.71	23.27	7.40	6.26	22.54	
1933-34	22	39.26	4.02	18.18	8.96	7.58	22.65	
Lääne 1932-33	12	28.93	3.32	18.50	8.26	6.71	21.24	
1933-34	15	29.73	4.16	23.90	10.43	7.98	24.17	
Saare 1932-33	14	37.78	2.32	8.38	5.56	5.69	19.30	
1933-34	15	40.52	2.33	8.58	6.80	5.01	18.87	
Pärnu 1932-33	36	46.93	3.51	18.73	11.34	5.85	24.63	
1933-34	42	47.35	4.09	19.94	12.64	7.35	24.38	
Viljandi 1932-33	48	45.36	3.43	18.97	13.98	6.62	23.35	
1933-34	42	47.47	4.50	25.19	18.92	7.96	23.78	
Tartu 1932-33	36	32.34	4.39	20.43	16.40	10.02	35.93	
1933-34	44	34.01	5.59	22.21	19.38	13.04	32.48	
Volga 1932-33	10	40.34	4.16	18.35	10.78	11.32	29.85	
1933-34	7	26.30	7.35	21.31	19.32	15.35	36.06	
Võru, Petseri 1932-33	45	35.22	3.42	15.99	15.05	12.03	31.19	
1933-34	36	32.09	4.88	20.23	10.30	15.49	38.84	
Farms:								
of less than 20 ha. . . 1932-33	65	13.76	4.83	27.77	18.79	16.27	43.71	
1933-34	65	13.85	6.23	29.97	23.54	19.42	44.59	
of 20-30 ha. 1932-33	69	24.79	3.58	17.86	12.43	8.26	27.69	
1933-34	70	24.65	4.36	22.43	14.68	10.00	28.09	
of 30-50 ha. 1932-33	104	39.69	3.15	15.87	10.20	6.26	24.07	
1933-34	104	39.16	4.23	18.21	12.59	7.26	23.42	
of more than 50 ha. . 1932-33	62	71.61	2.83	13.08	7.95	4.11	19.05	
1933-34	61	71.15	3.66	16.81	10.09	5.36	20.35	
Latvia:								
Livonia 1932-33	46	36.96	8.38	57.59	20.87	9.82	39.86	
1933-34	44	35.31	8.59	57.35	21.31	11.54	52.36	
Courland 1932-33	22	35.01	5.28	30.86	18.91	7.65	39.69	
1933-34	18	36.51	5.37	30.95	19.94	7.39	54.04	
Zemgale 1932-33	23	39.71	6.37	38.16	14.31	7.84	47.93	
1933-34	27	41.37	4.48	36.05	15.55	8.75	59.36	
Latgale 1932-33	16	19.05	9.25	35.45	17.16	14.67	62.36	
1933-34	19	20.02	5.51	32.83	23.31	13.51	47.54	
Farms of less than 20 hectares 1932-33	25	14.73	5.36	37.31	19.50	11.67	58.07	
1933-34	24	14.35	4.64	36.28	16.64	11.74	49.33	
Farms of 20-50 ha. . . 1932-33	53	28.67	7.08	41.49	16.78	8.62	37.88	
1933-34	55	29.50	6.16	39.05	19.22	8.69	51.51	

Expenses per Hectare, as a Percentage of the Social Income for 1928-29.

Total gross return	Farming expenses		Social income							Social income 1928-29 in na- tional money	
	Seeds, fertiliser, forage	Other expenses	Social income (total)	Income passing to third parties				Operator's income			
				Taxes	Interest of debts	Wages of employ- ees	Total	Work of the family	Return on own capital		Total
7	8	9	10	11	12	13	14	15	16	17	18
106.13	9.97	34.71	61.45	2.04	2.85	17.58	22.47	48.31	9.33	38.08	(79.28)
98.55	7.52	31.41	59.62	1.66	3.47	12.30	17.43	44.66	2.47	42.19	—
116.70	9.85	26.73	80.12	1.54	2.96	11.16	15.66	47.12	17.34	64.46	—
90.87	6.95	26.14	57.78	1.68	6.63	15.72	24.03	32.73	1.02	33.75	—
97.92	8.24	22.24	67.44	1.46	3.25	12.31	17.02	34.69	15.73	50.42	—
85.09	8.60	24.41	52.08	1.07	2.83	9.46	13.36	40.44	1.72	38.72	—
81.42	7.21	16.60	57.61	1.25	2.07	9.22	12.54	35.18	9.89	45.07	—
80.42	6.92	32.28	41.22	1.24	0.19	12.20	13.63	38.46	10.87	27.59	—
92.56	6.36	24.99	61.21	1.76	2.36	11.09	15.21	37.74	8.26	46	—
55.06	2.35	16.70	36.01	0.87	0.94	4.69	6.50	30.68	1.17	29.51	—
58.02	3.22	12.03	42.77	0.93	2.26	4.88	8.07	28.38	6.32	34.70	—
81.44	7.72	27.46	46.26	1.20	—	15.74	16.94	34.62	5.30	29.32	—
91.18	6.99	19.52	64.67	1.10	1.34	13.96	16.40	33.11	15.16	48.27	—
83.03	6.92	26.87	49.84	1.58	2.88	14.38	18.84	34.73	3.73	31	—
103.33	7.88	21.63	73.82	1.35	4.92	19.16	25.43	31.75	16.64	48.39	—
112.93	7.92	36.08	68.93	1.88	—	18.26	20.14	50.93	2.14	48.79	—
118.78	11.52	26.79	80.47	1.56	—	17.81	19.37	45.48	15.62	61.10	—
91.41	9.12	31.70	50.59	1.59	—	16.85	18.44	39.15	7	32.15	—
139.79	7.25	29.50	103.04	1.80	8.40	19.41	29.61	50.56	22.87	73.43	—
99.25	6.05	30.61	62.59	1.48	1.46	13.19	16.13	50.82	4.36	46.46	—
131.14	7.50	26.25	97.39	1.48	7.97	14.41	23.89	58.05	15.45	73.50	—
144.36	12.08	43.29	88.99	1.84	3.03	13.62	18.49	75.57	5.07	70.50	—
160.52	13.23	35.12	112.17	1.84	3.13	15.76	20.73	72.24	19.20	91.44	—
89.86	6.40	28.44	55.02	1.50	3.36	11.95	16.81	43.14	4.93	38.21	—
105.21	7.43	22.98	74.80	1.43	2.42	11.40	15.25	42.22	17.33	59.55	—
77.07	5.96	24.43	46.68	1.36	2.14	14.34	17.84	30.42	1.58	28.84	—
86.17	6.76	18.25	61.16	1.24	1.56	12.73	15.53	30.75	14.88	45.63	—
59.59	4.46	21.52	33.58	1.34	1.75	15.43	18.52	18.82	3.76	15.06	—
74.19	5.85	17.14	51.20	1.17	0.96	17	19.13	18.95	13.12	32.07	—
101.05	12.22	53.82	95.01	3.97	4.45	30.90	39.32	57.90	2.21	55.69	(65.18)
128.09	18.20	41.06	118.83	3.37	3.48	34.98	41.83	54.77	22.23	77	—
125.10	8.28	40.52	76.30	3.25	2.01	23.28	28.54	41.04	6.72	47.76	(89.91)
148.18	10.56	31.26	106.36	3.68	1.39	27.51	32.58	39.25	34.53	73.78	—
133.25	9.92	45.52	77.81	2.77	2.51	30.99	36.27	33.95	7.59	41.54	(100.08)
148.73	14.21	30.03	104.49	3.13	2.73	30.46	45.32	29.37	29.80	59.17	—
178.37	9.60	56.17	112.60	4.67	1.76	18.14	24.57	101.85	13.82	88.03	(62.08)
162.10	11.92	37.50	112.68	4.19	1.98	15.61	21.78	92.11	1.21	90.90	—
159.79	14.35	44.62	100.82	2.30	3.20	22.48	27.98	67.06	5.78	72.84	(118.39)
153.28	15.47	32.09	105.72	2.13	2.45	19.94	24.52	66.33	14.87	81.20	—
133.16	8.04	47.34	77.78	3.24	2.82	21.31	27.37	52.21	1.80	50.41	(89.92)
150.28	14.56	33.85	101.87	3.04	2.50	28.36	33.90	44.97	23	67.97	—

DESIGNATION	Number of farms	Average area ha.	Live stock production				Crop produc- tion	Miscel- laneous branches	Total gross return	Farming expenses		Social income								Social income 1928-29 in na- tional money
			Cattle		Pigs	Other animals				Seeds, fertiliser, forage	Other expenses	Social income (total)	Income passing to third parties				Operator's income			
			Breeding stock; slaughter stock, etc.	Milk and milk products									Taxes	Interest de debts	Wages of employ- ees	Total	Work of the family	Return on own capital	Total	
Farms of more than 50 hectares 1932-33	29	62.12	6.82	43.25	16.89	7.47	40.32	20.91	135.06	10.38	44.65	80.63	3.73	2.98	34.72	41.43	34 —	5.20	39.20	(69.09)
1933-34	29	60.05	5.99	43.77	18.44	9.51	55.90	24.88	158.49	12.56	33.23	112.10	3.98	2.66	41.53	48.17	33.72	30.21	63.93	—
Lithuania:																				
The whole country . . 1932-33	100	21.05	3.01	24.86	24.39	6.22	32.52	31.72	122.72	10.50	29.50	82.72	3.98	3.89	34.65	42.52	44.68	4.48	40.20	(200.54)
Farms:																				
of 5-20 hectares . . 1932-33	72	12.32	4.18	21.78	30.30	11.06	39.33	18.51	125.16	9.06	32.63	83.47	4.05	3.44	17.65	25.14	54.01	4.32	58.33	—
1933-34	67	14.44	4.09	15.39	18.97	7.45	30.16	15.31	91.37	6.16	19.26	65.95	3.78	2.41	11.32	17.51	45.88	2.56	48.44	—
of 20-50 hectares. . 1932-33	52	27.24	2.99	14.56	20.84	7.53	30.20	11.55	87.07	4.62	24.49	58.56	3.75	2.86	20.59	27.20	30.22	1.14	31.36	—
1933-34	55	27.63	3.55	11.71	14.11	5.92	20.79	11.53	67.61	4.17	16.91	46.53	3.75	1.80	14.30	19.85	25.72	0.96	26.68	—
Poland:																				
South 1932-33	106	7.16	3.66	16.60	6.47	8.34	22.17	5.94	63.18	3.41	18.53	41.24	2.12	3.45	5.66	11.23	30.03	0.02	30.01	(464.56)
1933-34	116	8.45	3.98	13.55	6.67	7.12	21.96	5.84	59.12	3.24	14.89	40.09	1.96	2.21	5.83	10.00	23.79	7.20	30.99	—
East 1932-33	93	15.95	2.83	11.44	8.69	7.64	26.49	6.34	63.43	2.46	13.61	47.36	2.55	2.37	10.25	15.17	28.11	4.08	32.19	(223.60)
1933-34	124	15.30	4.17	14.80	9.73	7.22	25.88	6.75	68.55	3.29	14.42	50.84	2.43	1.50	10.73	14.66	25.75	10.43	36.18	—
Centre 1932-33	140	11.99	3.16	10.61	10.23	7.88	23.26	5.53	60.67	2.94	14.53	43.20	2.44	2.70	6.40	11.54	24.44	7.22	31.66	(420.38)
1933-34	187	12.25	3.39	9.66	8.65	6.51	21.10	5.20	54.51	2.41	12.70	39.40	2.38	1.47	5.67	9.52	21.21	8.67	29.88	—
West 1932-33	78	19.47	4.90	15.68	13.31	8.43	28.26	7.09	78.27	6.22	26.22	45.83	2.34	3.45	14.75	20.54	20.64	4.65	25.29	(397.70)
1933-34	86	19.33	5.61	14.79	12.01	6.05	26.70	6.21	71.37	6.43	23.81	41.13	2.45	3.37	12.41	18.23	18.91	3.99	22.90	—
Poland:																				
2 to 5 hectares . . 1932-33	57	3.72	3.36	17.28	6.96	9.50	19.48	6.47	93.05	3.91	17.71	41.43	1.73	2.92	3.20	7.85	33.58	0 —	33.58	(555.38)
1933-34	54	3.84	3.81	16.24	8.37	7.79	20.92	6.33	93.46	3.86	16.80	42.80	1.63	2.24	2.93	6.80	29.34	6.66	36 —	(425.91)
5 to 10 hectares . . 1932-33	125	7.32	3.75	12.91	8.01	9.22	26.28	6.14	66.91	3.73	17.09	45.49	2.35	3.51	4.45	10.31	31.07	4.11	35.18	—
1933-34	161	7.33	4.02	11.67	8.25	7.50	22.90	5.29	59.63	3.32	13.96	42.35	2.07	1.83	4.26	8.16	26.76	7.43	34.19	—
10 to 15 hectares . . 1932-33	105	12.07	3.28	11.95	9.88	6.82	22.23	5.59	59.75	3.40	16 —	40.35	2.23	2.24	6.73	11.20	24.30	4.85	29.15	(379.96)
1933-34	134	12 —	3.88	11.14	8.11	6.05	22.66	5.75	57.50	3.18	14.03	40.38	2.25	1.83	6.63	10.71	20.48	9.19	29.67	—
15 to 30 hectares . . 1932-33	106	20.32	3.61	12.37	12.06	6.54	25.89	6.37	66.84	3.32	18.60	44.92	2.70	3.01	11.93	17.64	19.87	7.41	27.28	—
1933-34	135	20.41	4.20	11.75	10.56	5.45	22.86	5.94	60.76	3.41	16.93	40.42	2.84	2.28	9.65	14.77	18.64	7.01	25.65	(291.38)
30 to 50 hectares . . 1932-33	24	37.15	3.81	9.76	9.29	3.89	25.03	5.04	50.80	3.08	20.24	33.48	2.78	3.26	13.29	19.33	12.51	1.64	14.15	(300.50)
1933-34	29	37.19	4.02	9.96	8.36	3.59	24.63	4.94	55.50	3.96	19.41	32.13	2.87	1.87	11.97	16.71	10.74	4.68	15.42	—
Czechoslovakia:																				
Forage farms . . West 1932-33	34	14.74	—	—	—	—	—	—	—	—	—	69.66	2.95	6.59	25.53	35.07	45.66	11.07	34.59	(2312.96)
1933-34	73	14.57	—	—	—	—	—	—	—	—	—	53.38	2.82	7.97	20.98	31.77	32.71	11.10	21.61	—
East 1932-33	8	11.95	—	—	—	—	—	—	—	—	—	63.41	2.54	3.43	12.99	18.96	71.03	26.58	44.45	(1540.93)
1933-34	17	11.29	—	—	—	—	—	—	—	—	—	61.04	2.87	4.24	6.16	13.27	48.56	0.70	47.77	—
Farms growing ce- reals and po- tatoes West 1932-33	124	16.05	—	—	—	—	—	—	—	—	—	74.13	3.35	7.90	26.71	37.96	38.22	2.05	36.17	(2724.87)
1933-34	283	16.92	—	—	—	—	—	—	—	—	—	61.92	3.33	6.27	25.11	34.71	23.09	4.12	27.21	—
East 1932-33	23	18.38	—	—	—	—	—	—	—	—	—	72.12	4.52	9.22	22.81	36.55	60.84	25.27	35.57	(1291.94)
1933-34	67	15.05	—	—	—	—	—	—	—	—	—	90.93	5.66	11.26	19.84	36.76	49.69	4.48	54.17	—
Sugar beet farms. West 1932-33	60	17.66	—	—	—	—	—	—	—	—	—	66.12	3.99	8.38	26.27	38.64	25.64	1.84	27.48	(3613.95)
1933-34	171	18.19	—	—	—	—	—	—	—	—	—	59.18	3.62	9.65	23.67	36.94	15.76	6.48	22.24	—
East 1932-33	16	16.53	—	—	—	—	—	—	—	—	—	71.91	3.39	8.19	21.52	33.10	41.12	2.31	38.81	(2412.18)
1933-34	38	18.07	—	—	—	—	—	—	—	—	—	60.98	3.83	10.20	17.68	31.71	21.49	7.78	29.27	—

Production per Hectare

Regions in Estonia	Production					
	Rye (quintals)		Barley (quintals)		Oats (quintals)	
	1932-33	1933-34	1932-33	1933-34	1932-33	1933-34
Viru	13.53	16.49	13.83	9.45	13.34	10.01
Järva	15.21	17.45	11.39	8.52	10.37	9.05
Harju	14.55	16.04	11.32	10.40	10.90	8.42
Lääne	13.47	14.45	10.08	9.92	9.85	8.27
Saare	13.33	13.50	11.84	7.12	8.76	6.67
Pärnu	14.63	16.87	8.78	11 —	7.97	9.83
Viljandi	16.36	19.98	9.56	9.47	9.89	11.81
Tartu	13.98	16.16	9.42	7.51	11.79	10 —
Valga	12.04	15.46	6.32	8.82	8.47	12.74
Voru, Petseri	11.14	15.64	9.50	9.94	9.30	10.46
Farms under 20 ha	13.68	17.19	12.47	9.55	11.72	10.87
» from 20 to 30 ha	14.32	17.44	11.20	8.87	10.87	10.23
» » 30 to 50 ha	13.03	16.24	9.50	9.23	9.94	9.61
» over 50 ha	14.67	16.31	9.07	9.73	8.91	10.05

Although the farms of certain regions are few in number, their size gives them rank. According to the accountancy results, it is possible to establish the general tendencies of the economic trend. Wide divergences are noticeable between the regions. Production of barley, oats and hay was lower in 1933-34 than in 1932-33 in the Northern provinces: Viru, Järva, Harju, Lääne, Islands of Saare, while there was an advance in respect of these in the majority of the other provinces.

Rye and potato crops in 1933-34 resume normal productivity.

The production from cattle was nearly everywhere higher in 1933-34 than in the preceding year. The increase in production of pigmeat was less completely universal. As regards milk, the provinces of Viru, Järva and Viljandi were the only ones producing larger quantities for sale than in 1932-33. The farms of more than 50 hectares obtained higher crop yields in kind than in 1932-33; they also succeeded in securing a higher productivity in all the branches of stock farming.

The price rises for animal products, barley and oats made up for the poorness of the yields in kind: the gross return in crowns is higher by from 3 to 38 per cent. according to the regions and to the size groups than the 1932-33 figure; it fell only in the Harju region where there was a 40 per cent. decrease in milk production. In this same region of Harju however the farming expenses were more reduced than the gross return, and the economic or social income began to rise as in other parts of Estonia.

Taxes did not vary, but the interest on debts did. It is recalled that, in 1932-33, the rate of interest for loans granted to farmers by the Land Bank of Estonia was reduced to 2.5 per cent.; the effects of this measure were quickly felt. The lowered rates of interest on debts, as well as the reduced costs of

of Farms in Estonia.

per hectare				Gross yield in volume per hectare							
Potatoes (quintals)		Meadow hay (quintals)		Cattle (kg. of dead weight)		Milk (kg.)		Pigs (kg. of dead weight)			
1932-33	1933-34	1932-33	1933-34	1932-33	1933-34	1932-33	1933-34	1932-33	1933-34		
138.27	182.69	24.91	25.65	10.5	13.5	359	371	17.1	18.5		
139.75	155.33	31.65	28.92	9.8	10.9	295	303	17.6	15.9		
119.40	145.06	30.51	26.69	10.9	10.6	417	258	11.7	11.5		
133.09	139.64	36.55	28.19	9.8	10.1	331	329	13.0	13.4		
115.36	102.62	34.88	31.78	6.8	11.0	150	121	8.8	8.7		
145.72	167.42	31.87	32.55	10.3	6.1	335	283	17.9	16.2		
141.96	171.91	29.04	33.89	10.1	10.8	340	357	22.0	24.3		
142.73	172.49	32.98	32.15	12.9	12.0	366	315	25.8	24.9		
111 —	178.67	25.21	32.43	12.3	14.7	329	302	17.0	24.8		
137.81	165.72	24.92	27.20	10.1	19.4	286	287	23.7	24.8		
145.80	173.88	33.57	32.45	14.2	12.9	497	425	29.6	30.2		
138.87	156.35	28.85	25.58	10.6	16.4	320	318	19.6	18.8		
131.04	157.18	28.85	31.23	9.3	11.1	284	258	16.1	16.2		
134.71	165.35	27.43	30.25	8.3	9.6	236	238	12.5	13.0		

wage labour, were all to the advantage of the return on own capital and of the operator's income, already favoured by the advance in the social income. Expressed as percentage of the assets, the real return on the farm capital of the Estonian farms for which accountancy results are available rose from 1.25 in 1932-33 to 2.52 in 1933-34.

Latvia.

The gross return, in consequence of the increased sales; the economic or social income, by reason of the reduction in farming expenses; the family farm earnings, or operator's income, owing to the lowering of the interest charges on debts and to the reduced labour costs, all showed an advance in 1932-33, and in the following year a still further advance.

Prices of Agricultural Products in Lats.

Regions		Wheat (quintals)	Rye (quintals)	Barley (quintals)	Oats (quintals)	Slaughter cattle (head)	Pig meat (quintals)	Milk (kg.)	Butter (kg.)
Vidzeme . .	1932-33	25.85	21.78	13.89	9.84	50	58.86	0.10	1.55
	1933-34	25.39	20.01	14.27	10.88	53	73.58	0.09	1.60
Kurzeme . .	1932-33	24.69	20.94	13.84	9.77	51	60.75	0.10	1.55
	1933-34	25.43	19.55	14.51	10.82	55	73.50	0.09	1.57
Zemgale . .	1932-33	23.86	20.88	13.73	9.84	59	20.16	0.10	1.52
	1933-34	24.29	18.93	14.31	11.05	63	74.70	0.09	1.56
Latgale . .	1932-33	23.58	20.24	13.09	8.99	50	60.99	0.12	1.41
	1933-34	22.69	18.11	12.69	9.45	58	74.58	0.11	1.42

The increase in the gross return depends in the first place upon the rise in prices of farm animals (oxen, pigs, sheep, draught horses) and important crop products, such as oats.

In addition the productivity of the lands, which had much improved in 1933-34 as compared with the previous year, contributed to the advance in the gross return.

The following table shows the yields in kind and the milk production:

Regions		Wheat (quintals)	Rye (quintals)	Barley (quintals)	Oats (quintals)	Potatoes (quintals)	Meadow hay (quintals)	Milk per cow (kg.)
Vidzeme	1932-33	13.05	13.48	10.22	9.74	123.87	20.75	2.438
	1933-34	13.06	15.06	10.72	10.99	154.29	20.72	
Kurzeme	1932-33	14.32	14.37	11.20	10.74	133.49	19.46	2.120
	1933-34	15.27	15.70	12.72	12.19	143.98	18.77	
Zemgale	1932-33	15.28	13.16	12.50	10.74	119.87	23.10	2.125
	1933-34	16.77	14.47	13.06	11.91	131.65	23.38	
Latgale	1932-33	10.54	10.60	9.02	8.91	97.81	19.59	1.822
	1933-34	10.85	11.06	8.08	8.37	107.28	23.05	

Cereal sales were larger than in 1932-33. The production of beef and of pigmeat declined, to the advantage of the milk production. It was undoubtedly the high prices of butter which decided the small farmer to concentrate efforts on this branch of production, but the congestion of the British market brought about a fall in the level of production of pigmeat.

Gross Yield in Volume per Hectare.

Regions		Cereals (quintals)	Potatoes (quintals)	Cattle per (head)	Milk (kg.)	Pigs (kg. of dead weight)
Vidzeme	1932-33	0.94	0.51	0.110	375	23
	1933-34	1.30	0.95	0.106	415	19
Kurzeme	1932-33	1.38	1.51	0.093	277	28
	1933-34	1.70	1.43	0.088	300	24
Zemgale	1932-33	1.74	0.56	0.108	382	24
	1933-34	2.21	0.56	0.071	401	21
Latgale	1932-33	1.17	0.94	0.104	183	17
	1933-34	1.00	0.81	0.059	185	19

However it may be, the increase in the gross return in lats in the grass-land country of Zemgale, in the regions of Kurzeme and of Vidzeme, is due to the success of the crops, and to the firming of the prices of butter and of pigs. The farmers of Latgale, which is the least fertile region of Latvia, were unable to secure so high a gross return as in 1932-33. The small land owners are mainly found in this region; this explains the decrease in the gross return of the farms of less than 20 hectares. The farming expenses, or more precisely the current expenses other than those arising from purchases of seeds, fodder and fertilisers, decreased to such an extent that the social income of these farms was in advance, although less markedly than elsewhere, of the 1932-33 figure.

The interest charges on debts also fell (the rate of interest had been previously reduced by the Government) and also the labour costs. The result was that the return on own capital and the operator's income were established at a much higher rate than that of 1932-33.

The countries next in review are the three countries which border on each other, Lithuania, Poland and Czechoslovakia. In these three countries the conditions of agriculture became less favourable.

Lithuania.

Lowering of gross return, due to decreased production, and to decline of prices of dairy products; still more noticeable fall in the economic or social income: such is the balance of agricultural activity in Lithuania in 1932-33. The following year the situation of the farming classes were still worse. The Government endeavoured to assist them; subsidies were granted for the production of improved and standardised types of products; and also for land improvement operations; the export of flax, the trade in which was a Government monopoly, was regulated; the basic price of wheat was fixed, the Centre of agricultural co-operative societies (*Lietukis*) was empowered to purchase wheat at the price of 9 litas per quintal, and rye at 7 litas per quintal.

The prices of agricultural products, however, fell to a considerable extent:

Prices of Agricultural Products in Lit.

Years	Wheat (per quintal)	Rye (per quintal)	Barley (per quintal)	Oats (per quintal)	Potatoes (per quintal)	Beef (per kg.)	Milk (per kg.)	Pigmeat (per kg.)
1932-33	14 —	12.30	10.40	9 —	3.20	0.85	0.25	1.45
1933-34	12.80	9.10	8.70	7.90	3 —	0.05	0.20	1.30

Moreover the crops have not been satisfactory:

Quantities Harvested (in Quintals per Hectare).

Size group of farm	Wheat		Rye		Barley		Oats	
	1932-33	1933-34	1932-33	1933-34	1932-33	1933-34	1932-33	1933-34
Farms of 5 to 10 ha.	13.40	10.98	14.58	12.03	13.95	12.03	11.45	9.17
» » 10 to 20 ha.	12.20	11.25	13.28	11.05	12.88	10.23	10.30	8.76
» » 20 to 50 ha.	11.55	10.47	13.15	10.90	11.26	10.05	10.12	7.87

Size group of farm	Potatoes		Fodder beet		Meadow hay	
	1932-33	1933-34	1932-33	1933-34	1932-33	1933-34
Farms of 5 to 10 ha. . . .	118.51	110.92	244.22	187.50	30.33	25.40
» » 10 to 20 ha. . . .	116.67	84 —	302.28	187.54	23.02	23.60
» » 20 to 50 ha. . . .	98.22	93.27	234.17	165.48	18.53	21.33

Sales of cereals and of potatoes have not diminished; as regards animal production, only that of pigmeat weakened distinctly, on account of the congestion of the British market:—

*Gross Yield in Volume per Hectare.
(Quantities Sold and Delivered to the Farm Household).*

Size group of farm	Cereals (quintals)		Potatoes (quintals)		Cattle (meat) (kg.)		Milk (kg.)		Pigs (meat) (kg.)	
	1932-33	1933-34	1932-33	1933-34	1932-33	1933-34	1932-33	1933-34	1932-33	1933-34
Farms 5 to 20 ha.	2.80	3.47	3.27	2.85	10	10	175	154	42	29
» 20 to 50 ha.	2.59	2.63	1.62	1.95	7	8	117	117	29	22

It is thus clearly the fall in prices of agricultural products which was the cause of the lower figure of the gross return. Prices of farm requisites also decreased in a more marked proportion than those of agricultural products. The social income showed less decline than the gross return. Proportionally to that of the gross return, the decrease in the social income is 40 per cent. on the farms of from 5 to 20 hectares, and 59.98 per cent. on the farms of from 20 to 50 hectares.

Interest charges on debts were less. In 1933 the rate of interest on mortgage loans, as is known, was reduced from 7 to 5.50 per cent. By the terms of a law which came into force on 1 February 1934, the farmers were enabled to settle their former liabilities by means of bonds at 3.60 per cent. issued by the Agricultural Bank (*Zemés Bankas*). The labour costs falling on the farmers were also less heavy in 1933-34. The return on own capital, however, and the operator's income proved to be on a lower level than in 1932-33: the reduction in outgoings was not enough to balance the too rapid fall of the gross return.

The interest on the capital invested fell from 0.89 per cent. in 1932-33 to 0.74 in 1933-34 on farms of from 5 to 20 ha. in area, and from 0.53 to 0.45 per cent. on farms of from 20 to 50 hectares.

Poland.

The position of the farming classes, already far from satisfactory in 1932-33, became worse in 1933-34. Incomes higher than those of 1933-32 were yielded only by the State farms and by the small holdings of from 2 to 5 hectares.

Apart from a slight diminution in the barley and potato harvests in the South and in the West, the crops were more productive than in 1932-33. East Poland had the advantage of favourable weather conditions; the cereal harvest was higher by 19 per cent. and that of potatoes by 5 per cent. than the 1932-1933 figure.

Yield of Crops per Hectare.

Regions		Wheat (quintals)	Rye (quintals)	Barley (quintals)	Oats (quintals)	Potatoes (quintals)
South	1932-33	8.25	13.35	14.98	14.11	153.84
	1933-34	14.38	13.60	13.94	15.34	131.87
East	1932-33	7.50	9.33	12.19	10.05	113.77
	1933-34	11.27	11.05	12.87	11.29	120.09
Centre	1932-33	10.92	12.67	15.59	13.62	151.07
	1933-34	15.46	13.67	15.36	15.46	154.21
West	1932-33	15.71	15.75	18.52	17.44	145.10
	1933-34	17.77	17.29	17.47	95.81	143.33

Polish farmers were able to sell larger quantities of cereals than in 1932-1933, and to develop considerably their stock farming and their milk production. The most decided progress, however, in animal production was achieved by the small farmers of East Poland, where an acid soil, often peaty, water-logged or in dune formation according to the regions, gives no encouragement to the breeder.

Gross Yield in Volume per Hectare.

Designation		Cattle (kg. of live weight)	Milk (kg.)	Pigs (kg. of live weight)	Cereals (quintals)	Potatoes (quintals)
South	1932-33	25	453	35	3.42	3.97
	1933-34	28	420	38	4.24	3.99
East	1932-33	9	150	23	1.83	2.44
	1933-34	14	220	27	2.38	2.10
Centre	1932-33	20	262	50	3.60	4.20
	1933-34	21	271	45	3.85	3.31
West	1932-33	29	367	62	4.50	3.85
	1933-34	33	392	59	5.55	3.26
Farms of from 2 to 5 ha. .	1932-33	28	565	45	3.47	5.42
	1933-34	31	601	57	4.46	5.04
Farms of from 5 to 10 ha. .	1932-33	24	323	43	3.84	4.75
	1933-34	25	331	43	4.29	3.84
Farms of from 10 to 15 ha. .	1932-33	19	267	44	3.11	3.31
	1933-34	22	282	38	3.74	3.06
Farms of from 15 to 30 ha. .	1932-33	16	212	41	2.94	2.27
	1933-34	18	228	38	3.23	2.05
Farms of from 30 to 50 ha. .	1932-33	18	178	33	3.18	1.72
	1933-34	18	205	32	4.01	1.58

As a result of this extraordinary increase in animal production, the farmers of East Poland obtained a gross return, and, in spite of the increase in farming expenses, a social income higher than in 1932-33. This is the first time that the gross return may be seen to increase to some considerable extent in spite of a nearly general price decline.

The following statement shows the prices of a certain number of agricultural products, as ruling in Poland in the two seasons under review:

Prices in Zlotys

	1932-33	1933-34
Wheat (per quintal at the farm)	25.80	20.32
Rye (per quintal at the farm)	16.36	13.88
Barley (per quintal at the farm)	14.48	12.87
Oats (per quintal at the farm)	13.60	11.50
Potatoes (per quintal at the farm)	3.63	3.92
Beef (kg. of live weight at Warsaw)	0.67	0.67
Pigmeat (kg. of live weight at Warsaw)	0.86	0.81
Milk (kg.)	0.17	0.15
Eggs (per 100)	7.22	6.03

Another group of farms, that of the holdings of from 2 to 5 ha., obtained a social income higher than the 1932-33 figure; in this case the gross return was not lower, and the farming expenses diminished. For all other groups, the decrease in the gross return and in the social income was fairly well marked.

At the end of 1932 the indebtedness of Polish agriculture was approximately 4,600 millions of zlotys. As this indebtedness had been for the most part contracted during the period preceding the crisis, the rate of interest had been fixed very high. Measures were taken for the adjustment of the money market; long term loans were converted; the rate of interest on farm debts was lowered from 7.8 per cent. to 4.5 per cent.; the periods of amortisation, previously extending over 10 to 30 years, were prolonged to from 25 to 45 years; repayment of long term debts contracted with individuals was suspended up to 1 October 1934.

These measures greatly relieved the agricultural situation in Poland. Interest charges on debts were considerably reduced in 1933-34. Taking into account also the influence exercised on the results by the reduction of farm wages, the advance in the return on the family capital, and in many cases, also in the operator's income, is readily understood.

The remuneration of capital invested, owing to the lowering of the rate of interest and to the reduction in labour costs, improved in the following satisfactory manner:

Net Return as Percentage of the Value in 1933-34 of the Farm Assets.

	1932-33	1933-34
South	0.45	1.59
East	1.12	2.21
Centre	1.93	2.26
West	1.06	1.06
Farms of from 2 to 5 ha.	0.49	1.69
" " 5 to 10 ha.	1.18	1.85
" " 10 to 15 ha.	1.15	2.07
" " 15 to 30 ha.	1.55	1.58
" " 30 to 50 ha.	0.74	1.09

Czechoslovakia.

For technical reasons, the Prague Accountancy Office does not show the composition of the gross return nor of the farming expenses of the farms under review: in consequence this enquiry will be less complete for Czechoslovakia than for the other countries.

In 1932-33, the economic situation of the farming classes in Czechoslovakia was not satisfactory, in spite of the assistance given by the Government, the political and vocational organisations and the co-operative societies. Prices of farm products declined considerably with the exception of the prices of wheat, eggs, pigmeat.

The figures relating to the social income seem to indicate that the position of the Czechoslovakian farmers had improved in the East and had become worse in the West.

In 1933-34, the group of farms in the East engaged in cereal and potato cultivation was the only one showing a social income higher than the 1932-33 figure.

The fall in the gross return is explained by the price decline. Prices touched their lowest level in 1935 and during the first six months of 1934. This will be noted on comparing them with the prices ruling in 1932-33:

Prices of Agricultural Products in Czechoslovak Crowns.

	in 1932-33	in 1933-34
Wheat (per quintal)	154.20	128.83
Rye (per quintal)	99.35	78.86
Barley (per quintal)	84.50	78.11
Oats (per quintal)	78.90	66.84
Table potatoes (per quintal).	29 —	26.22
Butter (per quintal)	1.977 —	1.513 —
Eggs (per 100)	66.05	46 —
Beef (per quintal)	775 —	324 —
Pigmeat (per quintal).	1.031 —	683 —
Milk (per 100 kg.)	—	103 —

The margin between the prices of agricultural products and the prices of manufactured commodities showed no decrease of importance:

	in 1931-32	in 1932-33	in 1933-34
Index of agricultural products	589	510	495
Index of manufactured commodities	857	829	775

The following are the prices received for their products by the tenant farmers of the farms in the East of Czechoslovakia engaged in growing cereals and potatoes, these being the only group on which returns increased during 1933-34 (in Czechoslovak crowns).

Prices in

Year	Wheat (quintal)	Rye (quintal)	Barley (quintal)
1932-33	137.81	93.06	65.14
1933-34	120.67	72.10	68.26

The following table shows the quantities produced:

Regions	Wheat (quintal)	Rye (quintal)	Barley (quintal)
Farms growing forage crops:			
West 1932-33	0.30	0.72	0.09
. 1933-34	0.25	0.90	0.10
East. 1932-33	0.23	0.21	0.37
. 1933-34	0.12	0.08	8.24
Farms engaged in cereal and potato growing:			
West 1932-33	1.58	1.31	0.69
. 1933-34	1.61	1.60	0.52
East. 1932-33	0.89	0.68	0.41
. 1933-34	1.86	0.99	0.46
Farms engaged in sugar beet growing:			
West 1932-33	2.09	0.77	1.30
. 1933-34	3.59	1.10	1.24
East. 1932-33	3.19	0.23	1.71
. 1933-34	2.09	0.81	2.12

The increase in social income observed in the case of the farms of the East mainly engaged in cereal and potato growing is certainly not entirely due to the small price increases for barley, sugar beet, beef and pigmeat, since the production of potatoes, of sugar beet, of beef and of pigmeat considerably decreased. The reason must be sought in the fact that the number of farms under review rose from 23 in 1932-33 to 67 in 1933-34 and that the characteristics of the group were thereby modified. The number of farms keeping accounts in Czechoslovakia is not large enough for definitive conclusions to be drawn from the study of the accountancy results. The general trend however of economic conditions in the country can be thus revealed and in a manner beyond challenge. Without risk of error it may be said that the results of the farm undertakings was less good in 1933-34 than in 1932-33 (Table I), and that, on account of the considerable decrease in labour costs the return on capital none the less advanced.

Crowns.

Oats (quintal)	Potatoes (quintal)	Sugar beet (quintal)	Steers live weight (kg.)	Pigs live weight (kg.)	Milk (kg.)	Eggs (per 100)	Butter (kg.)
78.41	27.33	10.72	2.82	6.50	1.22	47	18.19
61.57	26.91	13.43	3.16	6.62	1.01	43	15.87

Oats (quintal)	Potatoes (quintal)	Sugar beet (quintal)	Bullocks (kg. live weight)	Pigs (kg. live weight)	Milk (kg.)	Eggs (per 100)	Butter (kg.)
0.27	0.96	—	93.69	43.49	307.26	97.76	3.87
0.47	1.42	—	102.81	43.50	269 —	104 —	5.28
0.02	1.87	—	59.50	25.02	195.65	24.75	0.59
0.18	0.35	—	114.26	22.05	119 —	26 —	0.71
0.43	3.35	4.54	100.93	45.36	285.73	105.48	2.09
0.53	3.05	4.02	103.13	43.68	243 —	95 —	3.78
0.03	0.48	0.71	69.04	23.94	39.77	54.30	0.71
0.11	0.32	0.58	48.11	15.41	36 —	52 —	1.79
0.07	1.18	26.91	122.71	45.53	349.60	89.64	4.47
0.05	1.40	24.71	115.34	43.21	374 —	96 —	3.79
—	0.09	5.57	58.92	34.42	14.82	32 —	0.36
0.04	0.07	5.02	57.66	17.99	55 —	40 —	1.33

Net Return as Percentage of Farm Assets.

	1932-33	1933-34
Farms growing cereals and potatoes:		
West	0.73	1.55
East	1.65	1.83
Farms growing sugar beet:		
West	1.27	2.20
East	0.94	3.40

Conclusions.

The period dealt with in this enquiry forms a part of the period of regression in the course of international trade through which Europe has passed while widening the bases of national production and the activity of national markets. Protective tariffs, bilateral treaties, monopolies quota-fixing, restrictions of importation, export premiums, all the hindrances to world trade have contributed to

replace the economy of the years before 1929 by a conglomeration of national economies. The Governments have been concerned to repair the damages occasioned by the crisis to agriculture; the farmers themselves have endeavoured to adapt themselves to the new times. The range of action taken by these latter may seem to have been somewhat limited, as it was scarcely within the power of the farmers to resolve that fundamental problem, namely that of the precise equilibrium between the prices of agricultural products and the prices of manufactured products.

It has been seen that, in spite of good harvests, the returns in cash have sometimes been lower than those given by average yields sold at higher prices. The Governments which are desirous of protecting agriculture endeavour, by means of tariffs, to prevent prices of agricultural products from being influenced by the prices ruling on the world market. When, however, production exceeds the requirements of the country, measures of protection become ineffective. At that juncture, it is still possible, by means of export premiums and subsidies, to prevent the low prices of exported products from exercising an unfavourable influence on the prices ruling within the country. This took place, for example, in the case of the dairy industry; the prices paid within the customs barrier of a number of States were higher than the prices of products for export. These measures of protection are thus the more necessary the more flourishing is the export trade.

It is not enough, however, to prevent the fall of prices of agricultural products, it is essential to avoid their level becoming too low in relation to that of the prices of manufactured commodities: these latter prices are much higher in the industrial countries such as Switzerland than in the agricultural countries such as Romania. In the industrial countries, everything is dearer; labour, land, building material, taxes, services rendered to the farmers by the notary, the veterinary surgeon, the land surveyor, the artisan; moreover the peasantry is continually bled by the succession charges.

Hence, the solution of the problem of equilibrium of prices differs according to the countries. The business of the legislator everywhere consists in knowing how to regulate production, in choosing the measures for maintaining the prices of agricultural products while not allowing them to injure the consumer, and in determining the grants of export premiums and of subsidies, as well as the imposition of import duties.

For some long time past the possibility has been contemplated of modifying the rate of interest in accordance with the height of the yield. This principle is a just one, and was in some sort embodied in the famous law of Hamurabi. It is not easy, however, to graduate rates of interest; the Governments, even the most powerful, often have no control over the immense forces which dominate the money market. It has been seen that in four countries bordering on the Baltic—Estonia, Lithuania, Latvia and Poland—laws have been enacted lowering the rate of interest on farms debts. But the other means of assisting the family farmer class was not within the scope of the legislator in this case, *viz.*, the maintenance of the prices at a level sufficiently high in relation to the rate of interest as well as to the costs of production for the prices really to remunerate the work

of the farmer, at once farm worker, the person undertaking the enterprise and the capitalist financing it. In Lithuania and in Poland, as well as in Czechoslovakia, where prices of agricultural products have declined, the social income has fallen, although the return on capital has benefited by the measures described. On the other hand, in Estonia and in Latvia, the rise in prices of important crops has made up for the poor yields in kind: incomes have advanced.

In other countries the interest on debts have also been reduced; for example, in Germany and Finland. Elsewhere wages have fallen, as in Norway, Sweden, Finland, Czechoslovakia, Soissons (France), Hungary. Taxes were less high in 1933-34 in the Netherlands than previously.

It has been noted that although higher prices made up for poor yields, on the other hand plentiful harvests and increase in animal production did not necessarily result in increasing the gross return when the important prices remained too low, as was seen on the dairy farms mainly grass in Switzerland. In periods of economic instability such as we are now passing through, it is thus in the first place not the expansion of production which ensures an advance in the gross return and the incomes, but it is the agrarian policy of Governments who take measures to strengthen the prices of agricultural products, when these have declined too far as compared with the prices of manufactured commodities.

The farms of the Swedish Norrland did not, however, benefit from the rise in the prices of barley and oats and from the prices of the products of cattle breeding at the time when the farms of the Centre and the South profited by these rises; similarly the mixed farms without alpland of Austria did not benefit by rise in wheat prices, while the farms engaged in cereal growing did so benefit. In these cases the natural conditions in which these farms were placed were such that the measures of protection remained inoperative. These are however isolated examples in the general current of recovery due to the assistance brought by the Governments to agriculture.

J. DESJARZES.

INTERNATIONAL ORGANISATION OF THE MARKET OF ORIENTAL TOBACCOS (1).

SUMMARY. — Oriental tobaccos. — Production and trade of Bulgaria, Greece and Turkey from 1912 to 1930. — The First and Second Inter-Balkan Conferences. — The Stresa Conference. — Report of the Special Committee of 1933. — The Central Office of Oriental Tobaccos. — Production and trade of Bulgaria, Greece and Turkey from 1931 to 1937.

It is proposed in this article to deal with the subject of the international organisation of the market of Oriental tobacco, which is a special kind of tobacco occupying a quite special place in the tobacco trade. This product is designed

(1) We have found in a few cases marked discrepancies between the figures showing the exports of Bulgaria, Greece and Turkey which we have utilised in studying the export trade in Oriental tobaccos and the figures contained in Tables III, IV and V. We give no preference to either set of figures, and have thought fit to utilise both sources, of which the data, from different points of view, are of great interest.

not to replace other tobaccos but rather to improve their quality, a result obtained by mixing other tobaccos with small quantities of Oriental tobaccos, their qualities of taste, aroma and burning being quite peculiar to them.

The chief importing countries of this kind of tobacco are: Austria, Belgium, Czechoslovakia, Egypt, France, Germany, Hungary, Italy, the Netherlands, Poland, Sweden and the United States.

The chief producing and exporting countries are: Bulgaria, Greece and Turkey.

Tobaccos, identical or less similar, are also grown elsewhere, for example, in Yugoslavia, South Russia, Italy, Albania, Romania, etc., but are for the most part consumed within the respective countries, the designation of Oriental tobaccos being usually applied on the international markets only to Bulgarian, Greek and Turkish tobaccos, the export of which is on a very large scale (1).

It may be of interest to add a short account of important types of Oriental tobaccos, taken from a publication of the United States Department of Agriculture (2).

Xanthi tobaccos are grown in the vicinity of Xanthi, Greece, and are manipulated at Cavalla and Salonika. They are very aromatic and have a fresh, sweet taste and high nicotine content. The colour ranges from orange to reddish brown. They are fine in texture, very popular for blends in cigarette and smoking mixtures, and are often the basic element in mixtures that are comparatively high in nicotine. The Xanthi varieties grown outside of the U. S. S. R. represent from 4 to 5 per cent. of the Oriental crop.

Macedonian tobaccos are grown in northern Greece, southwestern Bulgaria, and southeastern Yugoslavia. They are aromatic, having a pleasing taste, and low nicotine content, and they burn well. The colour ranges from lemon to reddish brown. They are popular for blending with other Oriental tobacco and are often the basis of mixtures. Usually these varieties represent between 12 and 15 per cent. of the Oriental crop.

Southern Bulgaria types may be divided into Phillipople, Haskova and Kochoukavak tobaccos. All three varieties have a mild, pleasing taste, and burn well. Phillipople is extremely aromatic; Haskova, slightly so; and Kochoukavak has but little aroma. The nicotine content is high in Kochoukavak, but comparatively low in the others. The colour ranges from lemon to orange. These varieties, consumed chiefly in Oriental cigarette mixtures of continental Europe, are used more often as filling material than as basic grades. They accounted for 8 or 10 per cent. of the crop during the period 1930-32.

Old Greek tobacco of several types is grown in southwestern Greece. Most of them range from orange to reddish brown in colour and from neutral to bitter in taste. They burn poorly and have medium nicotine content. They are used mostly as filling material in medium and low-priced Oriental cigarette mixtures.

(1) *La revue internationale des tabacs*. Paris, Septembre 1935, page 185.

(2) HUTSON, J. B. Consumption and Production of Tobacco in Europe. United States Department of Agriculture, Washington, D. C., Technical Bulletin 587, November 1937, pp. 23 et seq.

The Agrinian type is an exception: it burns reasonably well, is aromatic, and possesses a more pleasing taste than most of the other types grown in that section. During the 1930-32 period, between 6 and 7 per cent. of the Oriental crop was of the old Greek varieties.

Smyrna tobacco, grown around and inland from Smyrna, is said to be the most aromatic of the Oriental varieties. Most Smyrna tobacco is pale yellow in colour and often pale green before fermentation. It has fine texture, in some cases almost silky. It usually burns poorly and is low in nicotine content, but owing to its rich aroma, is used largely in mixtures where other types predominate. Smyrna tobacco is bought extensively by manufacturers of popular cigarettes in the United States. During the 1930-32 period, between 8 and 10 per cent. of the Oriental crop was of this variety.

The Aegean Sea Island types, named from the region of their production, resemble Smyrna tobacco in most respects, but they are usually less aromatic. They enter into the composition of Oriental mixtures in which types with better burning qualities are also used. Between 4 and 5 per cent. of the oriental crop is produced on the islands of the Aegean Sea.

The Samsoun, Baffra and Trebizond tobaccos are grown along the south shores of the Black Sea. In general, they burn well and are high in nicotine content, as compared with other Oriental varieties. They are moderately aromatic and have a pleasing taste. The colour is reddish brown. In recent years many grades grown on the southern shores of the Black Sea have become popular with manufacturers of cigarettes in the United States. Other grades are used in mixtures with tobacco of lower nicotine content or for the trade that prefers strong mixtures. Samsoun and Baffra are generally regarded as superior to Trebizond. Production usually ranges between 6 and 10 per cent. of the Oriental crop.

South of the Samsoun area proper and farther inland a type of tobacco with larger leaves is grown. This type has a lemon colour, good burning qualities, and a low nicotine content. It is popular as a filler for domestic mixtures. From 4,000,000 to 5,000,000 pounds of this type are grown annually.

Anatolian tobacco grows south of Constantinople, inland from the Marmora Sea. It resembles Samsoun in that it burns well and has a high nicotine content. The colour ranges from lemon to orange. It is generally regarded as less desirable than Samsoun, and its principal use is for fillers in cigarette mixtures. Anatolian tobacco represents about 5 or 6 per cent. of the total Oriental crop.

The Oriental tobaccos of Russia grow along the north and east shores of the Black Sea and a little further inland. In many respects these varieties resemble Trebizond, grown on the south shores of the Black Sea. They are highly aromatic and burn well, but in most cases contain less nicotine than Samsoun. The colour range is from light orange to reddish brown. Tobaccos grown farther inland are lower in nicotine and lighter in colour. In some localities artificial heat is used in curing. These types are used largely in Russia, but are exported to some extent to Germany and other central European countries and used in cigarette mixtures. During the period 1929-32 from one fourth to one-third of the Oriental crop was grown in the Russia.

TABLE I. — *Production of Oriental Tobaccos in Bulgaria, Greece and Turkey during the Period 1920 to 1937 (in quintals).*

Year	Bulgaria	Greece	Turkey	Totals
1920	293,040	316,840	291,430	901,310
1921	162,950	233,540	155,800	552,300
1922	263,440	257,900	205,440	726,780
1923	539,560	577,690	260,900	1,378,150
1924	491,910	502,970	518,700	1,513,590
1925	399,690	608,270	562,940	1,570,800
1926	271,890	613,800	543,190	1,428,800
1927	216,950	632,160	696,040	1,545,100
1928	157,630	587,380	430,350	1,175,350
1929	327,780	687,380	365,030	1,380,100
1930	269,410	658,690	472,110	1,400,210
1931 (1)	314,720	432,150	511,110	1,257,900
1932	172,000	275,440	180,400	627,840
1933	210,770	501,900	401,480	1,113,150
1934	210,100	400,560	356,780	967,500
1935	283,820	452,820	332,570	1,069,210
1936	340,000	820,000	600,000	1,760,000
1937 (2)	320,000	640,000	650,000	1,610,000

(1) *Revue Internationale des Tabacs*, January 1935, p. 49. — (2) *Do.*, December 1937, p. 362.

TABLE II. — *Exports of Oriental Tobaccos from Bulgaria, Greece, and Turkey during the Period 1920 to 1937 (in quintals).*

Year	Bulgaria	Greece	Turkey	Totals
1920	180,600	271,080	—	—
1921	202,130	272,710	—	—
1922	291,410	376,220	—	—
1923	171,880	213,950	245,240	631,070
1924	317,700	417,290	268,400	1,003,450
1925	336,920	412,150	337,600	1,086,670
1926	275,070	548,100	414,530	1,237,700
1927	269,780	536,550	293,900	1,100,230
1928	224,560	491,650	399,010	1,115,220
1929	202,760	501,260	326,920	1,030,940
1930	224,990	492,520	327,830	1,045,340
1931 (1)	246,400	430,970	229,270	906,640
1932	204,918	356,253	307,777	868,948
1933	225,114	349,010	206,639	780,763
1934 (2)	208,300	373,820	237,505	819,625
1935	—	—	—	(*) 950,000
1936	—	—	—	(*) 1,000,000
1937 (3)	—	—	—	(*) 1,000,000

(*) Rough estimates. — (1) *Revue internationale des tabacs*, November 1934, p. 226. — (2) *Do.*, March 1936, p. 185. — (3) *Do.*, December 1937.

The production of Oriental tobacco, which until 1912 was grown almost exclusively in the Ottoman Empire, has made slow but steady advances. The 21 million kilogrammes registered in 1890 rose to 31 in 1900, to 41 in 1909 and to 47 in 1912. The culminating point of this rise was marked in 1911 by an exceptional production of more than 69 million kg.

During these years the production in Bulgaria and in Greece attained only very limited figures.

The important territorial changes resulting from the wars that took place after 1912 entailed changes in the production of the three countries. A considerable decline was registered in Turkey and the pre-war level was regained only after sustained efforts, while at the same time the tobacco harvests in Bulgaria and in Greece represented more than 20 times the figures recorded during the earlier periods mentioned (1).

The efforts made and the attention given after the European war by the countries concerned with the object of increasing production resulted in the production in 1920 of 90,131,000 kg., of which 29,304,000 kg. were produced in Bulgaria, 31,634,000 kg. in Greece and 29,143,000 kg. in Turkey.

No export figures are available in respect of Turkey for the three years 1920 to 1922. In 1920 Bulgaria exported 18,060,000 kg. and Greece 27,108,000 kg. In the following two years production declined. In 1921 the production was 55,230,000 kg., including 16,295,000 in Bulgaria, 23,350,000 in Greece and 15,580,000 in Turkey; in 1922 the total was 72,678,000 kg., including 26,344,000 in Bulgaria, 25,790,000 in Greece and 20,540,000 in Turkey. As regards export from Bulgaria, 20,213,000 kg. were registered in 1921, and 29,141,000 in 1922. Exports from Greece were: in 1921, 27,271,000 kg. and in 1922, 37,622,000 kg. In 1923 there was a sharp rise in production to 137,815,000 kg., including 53,956,000 in Bulgaria, 57,769,000 in Greece and 26,090,000 in Turkey. During this year the exports of the three years amounted only to 63,107,000 kg.

In 1924 the total production rose to 151,359,000 kg., but the export also rose to 100,345,000 kg. In 1925 there was a further rise in production to 157,089,000 kg., and the exports rose to 108,667,000 kg.; in 1926 the production declined to 142,889,000 kg., while the export rose to 123,770,000 kg. In 1927 the production again rose to 154,516,000, while the export declined to 110,023,000 kg. In 1928 the production decreased, being only 117,535,000 kg. and the exports remained nearly constant at 111,522,000 kg. In 1929 the production was 138,019,000 kg. and there was an export of only 103,534,000 kg. (2).

As shown, the quantities produced in the three countries had much exceeded the limits of the demand; this was the initial cause of the crisis which was experienced immediately in Bulgaria, then in Turkey and in the last place in Greece. Foreign consumption had not followed the trend of the production, and had

(1) *Les Balkans*. Revue mensuelle, Athens, October 1931, p. 44.

(2) *La Revue internationale des tabacs*. Paris, November 1934, p. 226, and January 1935, p. 94.

TABLE III. — *Exports of Leaf Tobacco from Bulgaria.*
(Quintals).

Country of destination	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933
United States	3,955	3,565	3,239	998	—	199	—	23	64	9	—
United Kingdom	5	472	1,306	1,157	349	322	9	68	426	91	181
France	5	458	499	2,222	1,560	32	—	30,740	8,419	4,949	6,641
Netherlands.	4,023	14,982	9,589	20,879	32,663	13,549	2,422	1,551	6,445	11,716	6,758
Italy	39,666	46,525	63,602	46,425	24,131	20,729	17,499	14,900	6,423	16,493	12,179
Germany	30,236	109,270	119,693	91,122	93,222	85,434	72,697	62,736	106,403	106,018	138,050
Belgium	1,411	9,244	10,115	10,106	11,512	23,196	20,420	15,059	5,647	2,050	2,821
Austria	64,600	32,146	44,420	9,934	40,197	29,329	22,521	15,694	42,900	32,418	29,470
Switzerland	50	—	218	426	104	—	739	1,828	1,842	2,626	1,098
Hungary	3,416	11,607	8,423	19,495	17,937	8,863	9,729	11,816	8,046	1,796	2,409
Czechoslovakia	23,505	63,380	44,951	46,425	31,802	7,929	14,810	18,588	14,742	744	7,189
Poland	36	20,584	26,213	18,620	7,058	24,027	31,738	37,163	35,870	15,549	7,544
Egypt	531	1,932	2,005	4,745	7,253	8,977	8,428	11,834	4,522	4,191	5,611
Other countries	54	3,180	2,196	2,077	2,413	1,401	1,207	2,522	4,119	6,264	5,361
Total	171,493	317,345	336,469	274,639	269,391	223,987	202,219	224,522	245,868	204,914	225,112

(1) Source of Tables III, IV and V: Hutson, J. B., *op. cit.*, p. III. The figures have been converted from pounds into quintals.

remained at figures which were often inferior to the production by from 40 to 50 per cent.

Among the important factors which affected unfavourably the trade in Oriental tobacco was the marked tendency of the foreign manufacturers to lower the percentage in their blends of aromatic and sweet tobaccos, which are characterised by their mild quality.

With the continuance of the crisis stocks were formed and accumulated each year in the various producing regions, for in spite of the efforts made by the countries concerned, the sale of Oriental tobacco became increasingly difficult.

Considerable concern was felt at this state of affairs, and steps had been taken in the three countries to check the development, but no positive result could be obtained from want of co-ordination of efforts. On the other hand the manufacturers became engaged in even keener competition than before, which did much for their own interests but injured those of the growers. This competition was not confined to the Balkans where each of the three countries endeavoured to make sure of the advantage of the largest possible sale of the tobacco harvest. It spread also to other countries, and the Russian Black Sea tobacco, offered on the markets at prices which defied competition, was ranked along with the Far East tobaccos and those of Virginia in importance.

It is evident that a crisis in the tobacco trade could not fail to introduce into the producing countries a serious disturbance of their economy and finances, in view of the place occupied by tobacco in the export trade, the budget and in the regulation of social questions in these countries. To give some idea of the importance of the tobacco trade in Bulgaria, in Greece and in Turkey, it will be sufficient to mention for example that in 1930 the export of Oriental tobaccos occupied in the trade of Bulgaria 43.06 per cent. of the total export values, in Greece 57.29 per cent. and in Turkey 28.46 per cent.

The First Balkan Conference which met at Athens in October 1930 dealt especially with this question, and after a circumstantial examination of the causes of this crisis decided on the formation of an *ad hoc* Commission of specialised workers and experts of the countries concerned with the function of studying the special measures involved in the production of Oriental tobacco.

Unfortunately it has not been possible for this Commission to begin proceedings.

On the basis of private enquiries the three States concerned had taken measures the results of which, as already said, were not in proportion to the sacrifices made, owing to a want of co-ordination of efforts.

At the time of the Second Balkan Conference, which was held in Constantinople from 20 to 26 October 1931, a resolution was adopted for the establishment on the part of the Governments concerned of an Inter-Balkan Office for the protection of Oriental tobaccos. The functions of this office were to be:

- (a) to co-ordinate and to adapt production to the level of world requirements;
- (b) to carry out the necessary propaganda for maintaining the good reputation of Oriental tobaccos, and combat competition;
- (c) to secure new trade outlets;
- (d) to attempt to improve the various qualities of Oriental tobacco.

TABLE IV. — *Exports of Leaf Tobacco from Greece.*
(Quintals).

Country of destination	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933
United States	18,569	78,766	112,912	96,610	105,650	84,086	97,930	89,149	92,419	55,120	61,271
United Kingdom . . .	2,871	5,579	7,806	6,418	3,220	2,608	4,100	1,919	1,401	1,819	608
France	735	2,041	2,359	3,338	4,060	1,819	2,962	1,501	22,797	10,188	32,999
Netherlands	18,575	30,386	16,193	14,388	7,520	19,940	20,049	30,948	39,390	41,689	8,428
Italy	28,957	72,329	81,665	146,709	141,248	88,577	105,550	75,827	62,931	26,308	18,502
Germany	87,829	185,201	144,287	219,125	193,197	216,476	161,759	173,417	85,479	113,797	145,929
Belgium	17,708	13,381	11,027	9,281	9,621	15,200	20,629	19,060	8,759	13,472	10,310
Austria	10,165	671	789	281	8,682	16,719	27,587	24,371	33,321	35,579	19,808
Finland	1,284	735	204	780	1,488	1,039	272	1,510	2,318	3,062	3,379
Sweden	318	295	1,388	4,409	2,132	1,488	18,888	8,591	6,368	1,221	9,530
Cyprus	1,070	2,195	1,864	2,522	2,540	2,349	1,969	1,941	1,969	1,819	2,749
Egypt	18,039	18,221	30,232	38,161	19,010	22,389	15,241	17,930	15,068	16,080	7,688
Other countries	7,539	8,523	6,359	4,790	28,844	16,334	23,605	45,777	58,223	26,861	26,222
Total	213,659	418,323	417,085	546,812	527,212	489,024	500,541	497,941	430,443	353,015	347,423

In addition the Conference recommended the formation of national offices in the participating countries, for the purpose of co-operating with the Inter-Balkan Office for the protection of Oriental tobaccos. This decision of the Balkan Conference was not to have, for the time being, any practical outcome (1).

The Stresa Conference in September 1932 had noted that the already critical situation of the countries producing Oriental tobaccos was becoming seriously worse and that it was then assuming a character of extreme urgency, in view of the serious monetary and financial difficulties confronting Bulgaria and Greece alike. The Conference also resumed consideration of a report submitted to the Commission of Studies for European Union by a special Committee which had been engaged at the end of October 1931 with the question of tobacco.

The Conference expressed the conviction that it would be of the utmost advantage to assist the countries affected by this crisis by applying the recommendations made by the said special Committee, as to the extension of marketing possibilities for Oriental tobaccos, the amendment of fiscal and customs measures affecting Oriental tobaccos and finally the measures of organisation in the producing countries.

On the basis of these recommendations a Committee appointed to make a practical examination of the problem of the tobaccos of Eastern Europe met at Geneva from 21 to 25 March 1935 and discussed proposals which it may be of interest to reproduce here. The special attention of the Committee was directed on three points:

(a) *Extension of the Marketing Possibilities of these Tobaccos.* — In respect of this question account was taken of the request made by the exporting countries with the view to securing that the European importing countries, whether holding monopolies or following the system of freedom of trade, would increase appreciably the proportion of Oriental tobacco in the blends supplied for smokers. In this way there would be a lightening of stocks and for the exporting countries the situation would be perceptibly relieved. Although the monopolies as well as the free trade system are both under the necessity of following the tastes of consumers—which is the reason why it is found difficult to modify the blends in any way—the Committee were of opinion that there were certain possibilities in this sphere. Actually attention was drawn to those countries where the consumer has remained faithful to black tobacco and none the less there has been introduced into the manufacture of cigarettes of ordinary quality 5 per cent. of cheap Oriental tobacco. Naturally caution was exercised in making such a modification, and it was possible only owing to relatively low prices.

(b) *Amendment of the Fiscal and Customs Measures affecting these Tobaccos.* — As regards this point the Committee declared, in addition to the measures taken for extending the markets of Oriental tobaccos (measures the efficacy of which, although not negligible, appeared somewhat limited to the Committee), there should be added with advantage certain fiscal or customs measures relating to these tobaccos. In the consuming countries the Oriental tobaccos are subject

(1) *Les Balkans*, October 1931, pp. 44, 120 and 121, 138.

TABLE V. — *Export of Leaf Tobacco from Turkey.*
(Quintals).

Country of destination	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933
United States	19,822	32,327	52,830	64,360	70,238	73,051	23,600	62,527	46,579	63,770	50,017
Germany	42,379	62,368	89,380	84,617	38,941	57,951	85,738	74,820	23,160	76,498	106,457
Austria	—	—	—	—	2,400	12,120	7,620	12,469	10,242	13,748	11,031
Belgium	5,910	7,861	6,799	2,608	2,749	7,380	13,340	13,481	5,811	14,048	17,368
Czechoslovakia . . .	—	408	—	—	31,361	50,240	23,038	9,489	19,591	7,339	27,719
France	340	3,919	3,288	2,350	2,300	880	4,559	1,628	390	168	1,701
United Kingdom . . .	971	1,692	6,568	1,188	1,388	1,501	3,511	4,908	422	299	2,681
Netherlands	26,630	15,182	14,810	12,270	4,432	6,908	10,691	14,370	21,219	31,901	8,351
Sweden	—	—	—	2,921	1,179	3,860	2,422	1,910	1,628	5,180	1,402
Italy	—	129,219	153,268	205,036	101,926	116,328	96,397	93,798	67,821	41,898	13,898
Hungary	—	—	—	—	—	—	399	1,628	5,951	2,091	2,531
Egypt	1,279	3,180	3,620	23,038	4,201	35,561	28,059	20,861	11,948	10,932	7,838
Poland	—	—	41	—	—	159	9,738	4,168	408	880	—
Syria	3,039	7,139	3,012	8,410	16,842	6,758	2,300	1,560	1,061	571	2,250
Greece	1,470	2,182	1,401	3,279	11,108	16,402	11,249	6,681	3,302	12,188	199
Other countries	142,436	2,341	2,209	4,359	4,060	9,085	3,792	3,198	2,585	6,922	5,874
Total	244,276	267,818	337,226	414,445	293,305	398,084	320,453	327,496	222,118	288,433	259,317

to various fiscal and customs charges acting frequently to their detriment: the exporting countries on the other hand have interest in a re-adjustment of these duties favourable to their exports. Exportation suffers when the duties are heavier for the tobaccos entering into the manufacture of cigarettes, that is, for the high-priced tobaccos such as the Oriental type.

For the countries exporting these types, without wishing that tobaccos of inferior quality should be more heavily taxed, measures which would affect the less well-to-do consumers, it was asked that a real endeavour should be made to readjust the customs duties, consumers' taxes and so on, in such a way as to encourage more than has been done previously the consumption of cigarettes, especially those which may contain Oriental tobacco.

The Committee was of opinion that these questions related to fiscal questions of a general kind falling outside its competence and are moreover the more delicate in that tobacco has an important place in the budgetary equilibrium of the States. The Committee however learnt that in this order of ideas certain measures had been carried out or at least planned in several countries. One country had considered a diminution of the margin between the rate of duties on black tobacco and of those on Oriental types. In another country where the consumers' tax was progressive, this duty was to cease to be so and was to be collected on each kind of tobacco in accordance with a single rate, which, for other high-priced kinds, was to become perceptibly lower than that applied before: the Oriental tobaccos were chiefly to benefit from the fall in price which would necessarily result from these measures.

The exporting countries further drew the attention of the Committee to the fact that for a series of technical reasons the Oriental tobaccos, even if coming under equal duties, were more heavily burdened than the other tobaccos. For this reason they maintained that in order to avoid this inequality a special customs system should be introduced in favour of Oriental tobaccos which besides constitute only a minimum percentage of the world production of tobacco. Members of the Committee however observed that such preferential tariffs would encounter considerable difficulties.

1. Duties on tobacco have primarily a fiscal character. The State draws from them important resources and the abandonment of a part of the duties could not be contemplated at a time when fresh methods of raising taxes are being planned so as to balance the budget.

2. On the basis of the most favoured nation clause any duties reduced which might have been applied to Oriental tobaccos should have been so reduced on overseas tobaccos, and in that way the measure would have tailed of its object. The exporting countries objected to this view stating that the Oriental tobaccos constitute a special commodity noticeably differentiated from other products, a good reason for making them the subject of a special tariff measure, as has been already done in certain States. In their opinion the possibility of a customs specification might have been contemplated for Oriental tobaccos, a designation applying to a well known commodity possessing clearly determined properties.

(c) *Organisation Measures in the Producing Countries.* — The attention of the Committee was drawn to certain measures of organisation which appeared

TABLE VI. — *Importance of the Tobacco Exports of Bulgaria, Greece, et Turkey. (1)*

Year	Bulgaria			Grèce			Turkey		
	Value of general exports	Value of tobacco exports	Tobacco exports as a percentage of general exports	Value of general exports in millions of drachmas	Value of tobacco exports	Tobacco exports as a percentage of general exports	Value of general exports in millions of Turkish pounds	Value of tobacco exports	Tobacco exports as a percentage of general exports
1920	2,056	835	40.62	604	203	30.52	—	—	—
1921	2,801	572	19.96	947	279	20.41	—	—	—
1922	5,926	1,177	29.92	2,485	1,407	56.19	—	—	—
1923	4,343	1,067	24.58	2,545	987	38.78	85	20	24.19
1924	5,876	1,831	31.16	3,277	1,695	51.72	159	47	29.31
1925	6,242	2,333	37.36	4,541	1,539	33.88	192	60	31.39
1926	5,618	2,075	36.94	5,430	3,105	57.19	186	67	36.20
1927	6,627	2,119	31.98	6,037	3,459	57.30	158	44	27.77
1928	6,231	2,258	36.23	6,282	3,222	51.29	174	54	31.33
1929	6,397	2,909	45.46	6,085	3,958	56.67	155	41	26.33
1930	6,191	2,666	43.06	5,918	3,390	57.29	151	43	28.46
1931	5,934	2,592	43.67	4,202	2,255	53.65	127	29	22.86
1932	3,383	1,087	32.13	4,759	1,832	38.90	101	27	26.74

(1) *Revue internationale des tabacs*, November 1934, p. 228.

to be of a nature to improve conditions of production and sale of Oriental tobacco in the producing countries. Accounts were given by delegates from Bulgaria, Greece and Turkey on the organisations already existing in these countries, which appeared to have reached some degree of development.

It was added that the growing of tobacco in these countries is subject to a detailed regulation and that it has been definitely limited to the regions naturally suited for the cultivation.

The attention of the Committee was drawn to the efforts undertaken by the three countries for effective collaboration which were successfully resulting in the establishment of an Inter-Balkan Office of Oriental tobacco.

The Committee had before them a proposal coming from the said exporting countries and concerning the problem of an improved organisation of sales of tobacco in foreign countries on the part of these countries. Considering these problems from the purely technical standpoint and making it clear that its opinion on this subject could in no way bind the attitude of countries or of the manufacturer buyers concerned, the Committee felt it useful to reproduce in their report the views already expounded and to adhere in general to the opinion of those who had put them forward in so far as their realisation could ensure the application of adequate remedies to the existing situation. The following is the proposal which it would seem to be of interest to indicate here.

In order to render less abrupt, in the interest alike of the grower and of the buyer, the disastrous price fluctuations, the Committee contemplated the formation of a regulating stock to be held in each of the three countries.

In the opinion of the Committee, this stock should not be too small, as it would then not fulfil the function of regulation; but it should not be too large, as that would lead to over-production and to a tying up of capital, and in this way the object intended would be frustrated. A rate of from 10 to 15 per cent. of the normal production would appear to the countries concerned to meet the requirements either way.

The Inter-Balkan Office of Oriental Tobacco was to be made responsible for co-ordinating the activity of the three regulating stocks.

The regulating stock could not however exercise the influence expected of it nor avoid the risks usually attaching to enterprises of this kind, unless it were accompanied with two fundamental conditions, the first of which was a regulation of production within the national sphere, and the second the possibility of marketing the commodity stocked within a definite period, at most two years.

The former of these conditions was in course of realisation in each of the countries considered. In the opinion of the Committee it was desirable that the steps taken for such regulation of production should be continued, and it was further essential that the efforts of the three countries should be co-ordinated in accordance with the agreed lines in such a way as to maintain, if possible, the production within the limits of the normal demand for Oriental tobacco.

The second condition, which, moreover, should only enter after the guarantee had been given for the carrying out of the first, was undoubtedly more

difficult to realise. However, a collaboration between buyers and sellers appeared to be possible in the interests of all. If the principal importing countries, whether by the intermediary of their monopolies, or by the free decision of the industry in the respective countries, could engage to draw, even for a small proportion of their requirements, on the regulating stock, a great step towards the realisation of this essential condition would have been taken.

This plan, in spite of its somewhat modest proportions, might in fact involve certain technical disadvantages for the monopoly or for the purchasing industry, and even in some cases loss which, however, might be found to be balanced by the advantages of a stable and regularised market.

Another method of surmounting certain difficulties relating to qualities of tobaccos, to which some allusion had been made in the course of discussion, might be, in the opinion of the Committee, that of suitable adjustments as well as of direct negotiations between the buyers and the organisation, to the interest of which it would be to place itself in a position to satisfy the buyers as fully as possible. If annual programmes could be agreed upon, the regulating effect of these would be evident.

It seems in place here to add that a more systematic regulation of the tobacco crops, and consequently a more advantageous one, could be planned if the buying countries were able to standardise their purchases, that is to say, if from one year to another the quantities exported by the Balkan countries were subject only to very small variations.

The regulating stock should remain as such and should not become a commercial undertaking. In consequence tobaccos sold from stock should be sold at cost price.

As regards the capital required for initiating the regulating stock in the three Balkan countries, taking into account the fact previously mentioned that 10 to 15 per cent. of the normal production would be the maximum utilised for forming the stock, the conclusion would be that a small capital would be sufficient. In the existing conditions of production, the Committee pointed out, a figure of 30 million Swiss francs might be quoted, merely as an indication.

The constitution of this capital should, in the opinion of the Committee, be incumbent on the three producing countries provided normal conditions prevail.

For the regulating stock to be able to exercise its functions in the conditions anticipated here, it would be desirable that there be available a capital not burdened with interest charges or carrying a very small interest only, so as to free the regulating stock from all appearance of being a commercial undertaking, and also so as to avoid the necessity of raising the selling prices of the tobaccos stocked.

The formation of a limited regulating stock would not necessarily have as consequence the abolition of any existing stocks held by the dealers, and accordingly it was essential, in the opinion of the Committee, to weaken the detrimental influence which the existence of these stocks might have on the regularity of the market. With this object, the three countries administering the regulating stocks were to consider the possibility of "warranting," by means of the bodies responsible for the management of the regulating stocks, some part of the dealers'

stocks, that is to say that these bodies should pay over to the said dealers the equivalent value of the "warranted" tobaccos, either in accordance with the purchasing prices, or on the estimate of experts, the dealers being bound to make refund to the banks without delay. In this way, the tobaccos "warranted" would be freed from interest charges, and, on the one hand, the dealers would be in a position to sell them more easily, and on the other, the buyers would be able to purchase them at a more favourable price.

Finally the Committee concluded that the organisation above outlined presupposed the collaboration both of the producing and of the purchasing countries, whether system monopolies was in vogue or that of private industries. It follows that, in its own interest, it would have to avoid, with all possible care, introducing any disturbance into the normal activity of existing enterprises which had yielded results of value (1).

In accordance with a resolution passed by the Second Balkan Conference the delegates of Bulgaria, Greece and Turkey met at Constantinople on 11 September 1933 to prepare the scheme and the regulations of the Central Tobacco Office and to discuss the common attitude to be maintained by the three countries for the defence and protection of their economic interests.

The Conference, after discussions of some length, agreed on the drafting of the constitution of the Office in question and recognised the necessity for acting in complete harmony for the safeguarding of the interests of the three countries. It drew up a joint declaration, communicated for information to the three respective Governments, in which the objects of the Central Office of Oriental Tobacco were summarised and the constitution, as drafted, was submitted to the approval of the three Governments (2):

The following are the terms of the constitution in question:

The Office is a corporate body having the character of a public institution.

The purpose and objects of the Office are:

(a) to co-ordinate the efforts of the three producing countries for the facilitation of the marketing of Oriental tobaccos;

(b) to carry out the propaganda necessary for this purpose;

(c) to maintain the good reputation of Oriental tobaccos and to combat competition;

(d) to improve the conditions of the cultivation and in general the quality of Oriental tobaccos by means of the collaboration of the scientific Institutes of the three countries;

(e) to follow the conditions of the internal and foreign markets, and to keep those concerned informed;

(f) to ensure new trade outlets;

(1) COMMISSION OF ENQUIRY FOR EUROPEAN UNION. Report of the Committee Appointed to Consider the Problem of the Tobaccos of Eastern Europe. League of Nations. C 219, M 110, 1933-VII.

(2) *Bulletin de la Chambre de Commerce et d'Industrie d'Istanbul*, September 1933, p. 103.

(g) to endeavour by every means to obtain an increase in the consumption of Oriental tobaccos in the consuming countries;

(h) to use influence with the respective Governments for the unification of their legislation on tobacco;

(i) to adapt production to the consumption requirements taking into consideration social, economic and demographic conditions in the countries producing Oriental tobaccos;

(j) to collaborate with the national tobacco organisations in the three countries;

(k) and in general, to take all measures considered likely to assist protection of Oriental tobaccos.

The Office does not engage in trade, but acts as an institution for the defence of Oriental tobaccos. It may if necessary intervene by special mandate of the respective Governments for the purpose of forming stocks of the surplus of the crop the consumption of which is ensured by the purchasers of Oriental tobacco.

The relations of the Office, whether with the national institutions of the three countries, or with the countries consuming Oriental tobaccos and the institutions in existence therein, shall be fixed by internal regulation of the Office;

The Office shall correspond with the Governments of the three countries concerned by the intermediary of the Ministries of National Economy for Greece and for Turkey, and by that of the Ministry of Commerce for Bulgaria;

At the end of each year the Office shall submit to the Ministries above indicated a detailed report of its proceedings.

The official language of the Office is French.

The Office is administered by a Council of Administration consisting of nine members, three Bulgarian, three Greek and three Turkish.

The members of the Council are appointed by the Government of their respective country. They are selected among the persons having a profound knowledge of questions of tobacco and possessing no personal interest in the trade or in the manufacture of tobacco. The members of the Council are appointed for a period of three years. In case of decease or resignation, provision shall be made for the filling of the vacancy by the Government concerned.

The Council of Administration is the supreme authority in the Office. For important questions its decisions shall be unanimous and shall not enter into force till after their ratification by the respective Governments. As regards secondary questions decisions shall be taken on a majority of votes. The regulations of the Office which shall be drafted by the Council of Administration and adopted unanimously shall indicate the questions which are to be decided unanimously and those on which a decision by majority of votes is sufficient. The same procedure shall apply to all modification or amendment of these regulations.

The meetings of the Council of Administration shall be held successively in each of the three countries. The Council meets regularly twice yearly and exceptionally on the request of one of the delegations.

The actual management of the Office is entrusted to a Committee of directors, consisting of three members the competence and qualifications of whom are fixed by the Council of Administration.

The functions of director are not compatible with those of member of the Council of Administration.

The presidency of the Committee of Directors is assumed in turn every six months by one of the Directors who is responsible for the carrying into effect of the decisions of the Committee, adopted unanimously. In the event of divergence of opinion, the question is referred to the Council of Administration. The Directors shall be appointed respectively by the members of the Council of Administration representing the three countries at the Office.

The revenue of the Office shall be constituted from the proceeds of a charge of half a centime of the Swiss franc per kg. of tobacco exported which will be collected by the customs offices of the three countries and paid into the national Banks of Bulgaria, Greece and Turkey. The sums thus collected shall be as they are paid in converted by the respective Banks into Swiss currency and placed at the disposal of the Office.

The following has been the development of the situation of the market for Oriental tobacco from the year 1931 onwards.

In 1931 a total export of 90,664,000 kg. was registered as compared with a production of 125,799,000 kg. of tobacco. In 1932 the three countries were successful in reversing the situation, there being an export of 86,894,807 kg. as compared with a production of 62,784,000 kg. In 1933, however, the situation was again worse; with a production of 112,315,000 kg. there was an export of 78,076,312 kg. only.

In 1934 the situation perceptibly improved; with a production of 96,750,000 kg., an export figure of 81,962,540 kg. was registered.

In 1935 there was a further improvement of the situation. Actually production was 106,921,000 kg. and the exports were calculated at about 95,000,000 kg.

The consumption increase is mainly to be attributed to Germany and the United States which absorb a large proportion of the whole export of the three countries concerned.

The production of the year 1936 amounted to 176,000,000 kg., including 34 millions in Bulgaria, 82 in Greece and 60 in Turkey. The surplus for the most part consisting in stocks of low and very low class tobacco from the 1936 harvest, and kept back by the growers, was estimated at 20,000,000 kg. or 5 millions for Bulgaria, 11 millions for Greece and 4 for Turkey. Adding to these figures those of the internal consumption valued at about 22 million kg., and those coming from the waste tobacco forming ten per cent. of the production, amounting to 17 million kg., a total of 59 million kg. is reached. This quantity subtracted from the figures of the aggregate production gives a balance of 117 million kg. intended for export. Estimating at about 100 million kg. at a maximum the consumption of Oriental tobaccos abroad, there remains a surplus of 17 million kg. Admitting that some part of this was bought by those representing the consumers to fill any lacuna that might result from the scantiness of the former harvests or in order to swell the reserve stocks, there remains a balance available for trade of 18 millions and a half kg., consisting of tobacco of secondary or low qualities. It follows that the 1936 harvest leaves a quota of 23 million and a half kg. of

tion of hard wheat, the tax levied on hard wheat was double that on imported soft wheat, has not been included in the new law.

The proceeds of the levies mentioned above are to be paid into a special fund to be distributed to occupiers of agricultural properties according to the land value of their farms. It will be observed however that under the terms of the law only farms of more than 0.5 hectares and a land value of at least 500 kr. are considered as agricultural properties and that farms with a land value of over 10,000 kr. (previously 15,000 kr.) do not receive payments from the fund. The provision in the previous law according to which the fund was to receive a contribution also from the treasury in certain circumstances has been abolished in the law now in operation.

The Pigs and Bacon Markets.

Up to the end of 1932 the Danish bacon production in excess of home requirements had no difficulty in finding an outlet in the British market. The restriction of bacon imports in Great Britain, in 1932, however, changed the situation of Danish bacon producers completely. To meet the situation, the Danish Parliament passed in February 1933 legislation empowering the Minister of Agriculture to take certain measures for the regulation of pig production. Later on several occasions these measures have been renewed with minor modifications, the last time by the Law for the Regulation of Pig Production (1) passed on 22 December 1937 and effective up to 31 December 1939. According to the provisions of this law and to the regulations thereunder, which are similar to those in force previously, two different pig prices are fixed, of which the higher, based on the price obtained on the British market, is applicable to a number of animals corresponding to the requirements of the home market plus the export quotas for Great Britain, whilst the lower applies to animals for which an outlet has to be found on other markets.

The distribution to producers of cards entitling them to payment at the higher rate is to be made on lines similar to those previously followed, *i. e.*, taking into account the land value of the farm, the quantity of skimmilk, buttermilk and whey received back from the dairy and the number of pigs previously delivered (2). According to the system in operation from 1 January 1938 for the distribution of cards, however, smallholders are granted a relatively larger number of cards than under earlier regulations, as it has been thought fair to reserve the reduced pig production chiefly for those farms, which, before the regulation, engaged mainly in this kind of production.

For stimulating the market for pigs and pigmeat and for covering the expenses of the regulation scheme, the Minister of Agriculture is also, as before, empowered to levy a fee on all pigs slaughtered for sale and fit for human consumption (sows and boars excepted). According to a decree of 30 December 1937 (3), this fee, from 1 January 1938 until further notice, is to be 4 kr. per each slaughtered animal. Where no card is delivered and also in case of the slaughtering of pigs above 70 kg. dead weight, an additional levy has also to be paid which will be fixed weekly by the Bacon Committee of the Ministry of Agriculture on the basis of the difference between the bacon quotations for Great Britain and the price for bacon on other foreign markets.

(1) "Lov om Regulering af Svineproduktionen." *Lovtidenden A*, 1937, No. 39, p. 1648-49. —

(2) "Bekendtgørelse angaaende Regulering af Svineproduktionen." *Lovtidenden A*, 1937, No. 42. —

(3) "Bekendtgørelse om Afgift ved Slagtning af Svin." *Lovtidenden A*, 1937, No. 42.

The pig regulation has brought about a considerable reduction in the number of pigs. Whereas, before the regulation, there were annually produced in Denmark over 7 million pigs, the production in 1937 amounted to little above 3 millions, of which half a million was sold on the home market.

The Cattle and Beef Markets.

To remedy the very serious situation of Danish production of slaughter cattle and beef, brought about by the import restrictions of other countries, especially Germany, the Danish Parliament passed in February 1933 a law to assist farmers to dispose of unremunerative live stock at a fair price, in order thus to relieve the market and to raise cattle prices in general. This law, like the pig regulation scheme, was later renewed on several occasions in a more or less modified form, lastly by the Law on Measures for the Promotion of the Marketing of Cattle and Beef and on the Provision of Means of Combating Cattle Tuberculosis, etc. (1) passed 22 December 1937 and effective from 1 January 1938 up to the end of 1939. According to the provisions of this law the Ministry of Agriculture is empowered to prohibit the marketing of beef which has not been duly controlled and stamped and to levy a slaughtering tax on all cattle slaughtered for sale and fit for human consumption; this tax amounts to 18 kr. (previously 20 kr.) for full grown animals and to 8 and 3 kr. respectively for calves from 90-115 kg. and from 65-90 kg. dead weight. For calves up to 65 kg. (previously 40 kg.) dead weight no tax is paid. The proceeds of the levy go to a fund most of which will be used for the covering of compensation and slaughtering costs in respect of tuberculous animals, and the rest for the purchase of healthy animals for small-holdings established with State assistance, and for the fight against contagious abortion. According to the provisions of the law previously in operation part of the levy was used for the distribution of beef to needy persons, but sums for that purpose, as well as for the distribution of bacon, pigmeat and milk to the poor, are now paid directly from the treasury in virtue of the Law on the Distribution of Beef, Bacon and Pigmeat to Needy Persons and on Aid for the Purchase of Whole Milk passed 22 December 1937 and effective up to 31 December 1939 (2). In two royal decrees of 30 December 1937, effective from 1 Jan. 1938 until further notice — Decree on the Slaughtering of Tuberculous Cattle (3) and Decree on the Slaughtering of Unremunerative Cattle (4) — details are given of the compensations to be paid for various quality classes of such animals when delivered for slaughtering and eventual destruction.

According to the provisions of the above mentioned cattle and beef marketing laws, Danish farmers have between February 1933 and the end of 1937 been relieved of a total of 483,000 tuberculous or unremunerative animals, of which about half, 232,000, have been destroyed, and the rest utilised for industrial purposes (5).

(1) "Lov om Foranstaltninger til Fremme af Afsætningen af Kvaeg og Oksekød." *Lovtidenden* A, 1937, No. 39, p. 1644-45. — (2) "Lov om Fordeling af Oksekød, Flaesk og Svinekød til traengende Personer og Hjaelp til Indkøb af Sødmaelk." *Lovtidenden* A, 1937, No. 42. — (3) "Bekendtgørelse om Nedslagting af tuberkuløse Kreaturer." *Lovtidenden* A, 1937, No. 42. — (4) "Bekendtgørelse om Nedslagting af Udsætterkvaeg, der ikke egner sig til almindelig Slagtebrug." *Lovtidenden* A, 1937 No. 42. — (5) In the period from the autumn of 1932 up to the coming into force of the Law of February 1933 about 22,000 animals had been purchased and destroyed, with a view to relieving the market, under a regulation made by the Agricultural Council, which is the central representative body of all the important agricultural organisations in Denmark.

The Butter Markets.

The considerable fall of the price level of butter on the international market, which set in about 1930, gave rise to a claim by the Danish dairies for measures to secure, as a compensation for the unremunerative export prices, a higher price for butter on the home market.

This claim was met by the Law on Crisis Measures passed on 13 December 1933, which however ceased to be effective in November 1934. No such support was again given to the Danish dairy industry until the Law on Butter Regulation was passed on 6 May 1937. This law was in force up to the end of 1937, when it was superseded by the present butter regulation of 22 December 1937 (1) which will remain in operation to 31 December 1939. According to this law a tax, corresponding to the sum by which the official butter quotation falls below 2.60 crowns per kg., will be levied on all butter sold on the home market, a minimum price for which is thus secured. If the Ministry of Agriculture finds it more appropriate, the butter tax may be replaced by a tax on whole milk sold on the home market either for direct consumption or for manufacturing purposes; this tax is to be fixed weekly. In the weeks during which the butter quotation is equal to 2.60 kr. per kg. or above that price, no tax will be levied. The proceeds of the tax go to a special fund to be used for the benefit of agriculture according to certain rules. The provision of the previous law on butter regulation, according to which also a certain state contribution was to be paid into this fund, has now been dropped. The Ministry of Agriculture is, as previously, empowered to assign to authorised export firms the sole right of butter export and to prohibit all imports of milk and milk products, two provisions retained in force from 1 Jan. 1938 by a decree issued on 30 December 1937 (2). The same decree provided for the levying of the tax spoken of above on milk instead of on butter. It ought also to be pointed out that under the provisions for the support of butter production the Ministry of Agriculture is also empowered by the law of 22 December 1937 to grant on advantageous conditions to the central organisation of Danish co-operative dairies loans up to 6 million crowns in order to further the regulation of the butter market and the provision of cold storage.

Trade Agreements.

Amongst State measures to aid the marketing of agricultural products, taken during the second half of 1937, must, lastly, be mentioned the trade agreements concluded between Denmark and a number of other countries—Germany, Italy, Switzerland, Netherlands, etc.—facilitating Danish agricultural exports.

The most important of these agreements is the Danish-German Agreement concluded in November 1937, Germany being, next to Great Britain, the largest purchaser of Danish farm products. The agreement, which came into force on 1 January 1938 and will be effective until 31 December 1938, is based on the same principles as the previous trade agreement, *i. e.*, the volume of Denmark's exports to Germany is to be regulated quarterly, and adjusted each time to Danish imports from that country dur-

(1) "Lov om Smørordning." — *Lovtidenden A.*, 1937, No. 39, pp. 1636-37. — (2) "Bekendtgørelse om en Smørordning." *Lovtidenden A.*, 1938, No. 41, p. 1728-30.

ing the previous quarter. It is however calculated that the value of Danish exports to Germany in 1938 will, in consequence of the new agreement, probably exceed the figures for 1937 by about 10 per cent.

II. — MEASURES AFFECTING AGRICULTURAL ECONOMY IN GENERAL.

Agricultural Credit.

Among measures for the support of Danish agriculture taken during the second half of 1937, there is, apart from the laws mentioned above concerning cereals, pigs, cattle and beef, and butter, the Law on Preferential Rights on the 1938 Harvest for Debts Contracted by Owners of Farms and Tenants for the Purchase of Seeds and Fertilisers of 22 December 1937 (1). This law, the aim of which it is to facilitate the purchase by farmers of the means of production mentioned, is however not entirely new; it is a measure that has, in recent years, been annually passed by the Danish Parliament. The rights granted to seed and fertiliser dealers by this law are such that their claims take precedence over other claims on the harvest or on the property in general of the purchaser and involve further, that goods delivered according to the provisions of the law are not liable to distraint for meeting other claims on the debtor. Goods delivered under conditions laid down in the law are to be paid for at the latest by 1 October 1938. The conditions under which the preferential rights mentioned are granted are that local authorities certify that the right is a necessary condition for the farm to be sufficiently supplied with seed and fertilisers, that the quantities of the said requisites ordered by the owner concerned are in fair relation to the area of his farm and its type of cultivation, and that the price asked by the contractor is reasonable. As a further condition the law prescribes that the farmer shall give a personal guarantee that the quantities of seed and fertilisers ordered will be used exclusively on the farm owned or let by him.

ITALY

The movement of prices of agricultural products in general in Italy has been characterised by a rising tendency which became accentuated during 1937. The national index number of wholesale prices of primary vegetable products rose from 84.4 in January to 92.2 in June 1937, declining slightly to 88.1 in November. The price index for primary animal products, on the other hand, rose steadily from 78.6 in January to 100.1 in November. Taking agricultural food products alone, the wholesale price index number for those of vegetable origin rose from 85.1 in January to 90.4 in November 1937; for those of animal origin, the rise was from 80.3 to 103.

Agricultural prices are currently tending towards stability at a remunerative level, such as will stimulate farmers to increase production to the extent dictated by the country's growing consumptive needs. The system of collective sale through

(1) "Lov om Fortrinsret i Høsten for Aaret 1938 for Gaeld, der stiftes af Ejere og Brugere of Landbrugsejendomme til Anskaffelse af Saasaed, Frø og Kunstgødning". *Lovtidenden A.*, 1937. No. 39, p. 1642-43.

compulsory pools (*ammassi*) was introduced to this end, and has so far been applied to wheat, hemp, silk cocoons, wool, etc.

In order to assure the country's independence in food supplies, the programme of the "wheat campaign" was extended to include the other branches of agricultural production so as to attain a better balanced organisation of the national farm economy.

Since it was necessary to ascertain the elements making up costs of production in order to fix remunerative prices, the corporations were called in to study the question and the "corporative committees for regulating the production of, and trade in, given products" were invited to collaborate.

Corporative committees have been established, *inter alia*, for (a) the regulation of sericulture, (b) the domestic consumption of fruits and market garden crops, (c) wool, (d) the livestock industry (e) milk and its derivatives, (f) fats, and (g) sugar.

Measures concerning prices have been taken with a view to reconciling the interests of production and consumption, as will be seen below.

I. — MEASURES AFFECTING MARKETS AND PRICES

Grain Markets.

Wheat. — The pooling of wheat is effected under instructions issued by a central office, attached to the Ministry of Agriculture and Forests, the function of which is to ensure the country's wheat supplies and their distribution internally. Basic selling prices for wheat of standard quality (*i. e.*, with a specific weight of 78 kg. per hectolitre for soft wheat and of 80 kg. for hard wheat) have been fixed, taking into consideration average production costs and profit margins. Such prices were fixed for the period 12 June 1937 to 30 June 1938.

The price paid to farmers for soft wheat is 125 liras per quintal; the selling price to millers has been raised by 14 liras over last year's price, and varies between 136 and 141 liras according to the province.

The price paid to farmers for hard wheat was fixed at 140 liras per quintal, and a supplement of 14 liras above last year's price is paid for hard wheat sold to millers and delivered in bulk to the compulsory pools.

These prices, less storing charges, are paid in full to farmers as soon as their wheat is delivered to the pools.

Prices paid to farmers for wheat of specific weight under 78 kg. per hectolitre were fixed by a Ministerial Order of 18 August 1937, as follows: 121.25 liras for wheat of 73 kg. specific weight and 0.75 lira for every additional kilogramme up to 77, when the price is 124.25 liras.

Flour mixtures were authorised for the baking of bread by a Ministerial decree of 8 September 1937 (1), so as to obviate the necessity of heavy importation of wheat before the new crop was harvested, and to enable stocks to be formed should the need arise. The mixtures are to contain flour of cereals other than wheat or of legumes, but not more than 10 per cent. of such flour.

(1) *Gazzetta Ufficiale*, No. 212, 11 September 1937.

The export of a number of wheat products was prohibited, furthermore, by a Decree of 7 August 1937 (1). These were wheat flour, semolina and alimentary pastes.

Maize. — The maximum price of maize was fixed in relation with costs of production and other cereal prices at 90 liras per quintal, free on rail, for the period up to the 1938 harvest. This new maximum price, however, cannot be reached until the second half of the season.

Rice. — The rice market has been organised in a different way. The National Rice Institute, to which the safeguarding of Italian rice production has been entrusted since 1931, was authorised to make advances to producers of 90 liras per quintal on high-yielding rough rice as from 10 October 1937. A sharp fall in price at harvest time is prevented in this way. The Institute itself contributes to the payment of interest on such advances to the extent of 2 per cent.

The Institute, as from 31 July 1938, is to purchase directly from producers all quantities of the crop duly notified but not yet sold on that date, paying 96 liras per quintal for rough rice "Originario" and 103 liras for "Maratelli."

In order to ensure normal conditions and stable retail prices throughout the year, effective maximum prices for rough rice during the three four-month periods ending 31 January, 31 May and 30 September 1938 are to be 92, 94 and 96 liras per quintal respectively for rough rice "Originario" yielding 65 per cent., and 99, 101 and 103 lire for "Maratelli" yielding 60 per cent.

The Institute is authorised partially or totally to requisition rough or cleaned rice and rice by-products at any time in order to maintain prices at the levels indicated above and to prevent speculation.

Maximum prices for rice, free on rail at shipping points, packing included, were fixed for the three four-month periods ending 31 January, 31 May and 30 September 1938 at 160, 162 and 164 liras per quintal respectively for "Originario" and 186, 188 and 190 liras respectively for "Maratelli."

The Wine Market.

Recurrent overproduction leads to a great degree of instability on the Italian wine market. The Vine-growing and Wine-making Corporation consequently decided to balance production with consumption more closely by storing surpluses and providing for their utilisation.

With this end in view, a law of 10 June 1937 (2) on vine-growing and wine production provides that persons wishing to plant or replant vineyards must obtain the necessary permit from the vine-growers' consortium of the district. This serves the double purpose of preventing extension of vine cultivation to less suitable areas and of assuring that vineyards shall be planted or replanted with choice varieties of constant yield. In certain cases land owners are required to notify area under vines to the consortium.

According to special decrees to be issued by the Minister of Agriculture and Forests, declaration of the quantity of wine produced is to be made to the local authorities not later than 20 November each year by all producers. Every five years, or possibly at longer intervals, a declaration must be made of quantities of wine held by producers and dealers.

The decree providing for such declarations will also make it compulsory for wine-makers to set aside a part of the wine produced from grapes of the current vintage. The wine so set aside or a part of it must be placed at the disposal of the recently established National Institute for the Distillation of Vine Products, to be used for the production of alcohol. The Institute is charged with conducting all operations concerning the collection of wine and of small wine residues, and other by-products of wine-making containing alcohol, and the delivery of such products to distilleries.

A national consortium of distillers of second grade wine spirits has also been established for the purpose of encouraging and regulating production and of undertaking sale.

The formation of wine-making establishments (*enopoli*) is also encouraged. These are to concentrate on the production of typical wines of superior quality in the different regions and on the production of wines of a uniform type complying with market requirements.

The production of, and commerce in, wines which have a name of origin is also controlled.

Wines of superior quality of determinate origin are defined as being natural wines the origin of which is definitely determined by the area of production, the land, the variety of grape and the methods of preparation, and which possess general characteristics that are constant and are such as to give them special fineness and good quality.

The Minister of Agriculture and Forests is authorised to establish specific marks for wines which are declared to be of a determinate origin.

The Oil Market.

While the wine market, as has just been pointed out, is often disturbed by overproduction the contrary is the rule as regards the market for oil. Since annual oil production averages about 2,200,000 quintals against an annual consumption of 3,000,000, there is an annual deficit of about 600,000 to 700,000 quintals. This is made up by the import of various oil seeds yielding oils which do not correspond to the tastes of the population. In addition, such imports affect unfavourably the balance of trade.

In October 1937 the Government initiated a national olive competition with a view to improving this state of affairs and adopted a programme for increasing national olive oil production. Subsidies are granted under this scheme to farmers who improve their olive groves by improvement of the land, by more scientific pruning, by manuring and by combating disease. Subsidies are also granted on new plantings.

Contributions are also made towards the instalment of technical equipment for producing the best types of olive oil and for the grafting of wild olives. In the latter case payment is made according to the number of plants grafted and according to area.

The Fruit and Vegetable Market.

The Fruit, Flower and Vegetable Corporation investigated conditions in this market, particularly the problems connected with exportation and domestic consumption. As regards exports, the most effective methods of improving quality, conditioning

and presentation of products for foreign markets. The Minister of Agriculture and Forests was authorised to grant sums not exceeding 40 per cent. of the cost, for the construction and fitting out of plants for preserving, treating and transforming these products.

A compulsory national mark for exports of fresh and dry fruits, citrus fruits and legumes was established under a Decree-Law of 20 December 1937 (1). The Foreign Trade Office (*Istituto Nazionale Fascista per gli Scambi con l'Estero*) is charged with the registration, legal protection and application of this mark. The transport through, and shipment out of, Italian territory of merchandise not bearing such marks is forbidden.

A technical committee was established for controlling the distribution and quality of produce intended for internal consumption; for establishing uniform conditions throughout wholesale markets in vegetables, flowers and fruits; for regulating the transport of such produce, particularly to the smaller centres; and for organising publicity for the encouragement of consumption.

According to a Decree-law of 21 August 1937 (2), public wholesale markets are to come under the direct supervision of the communes, which are to provide for hygienic and sanitary supervision, policing, and the general management of markets.

The communes are empowered directly to establish markets and to administer general market services, such as maintenance of equipment, and the weighing, storing and preservation of merchandise. One or more special bodies may be set up for this purpose. If the communes do not perform these functions directly, they may delegate them to organisations set up by the various interested parties on the market. A special committee, created for each market and presided over by the Podestà, is charged with advising on all matters relating to the economic organisation of the market. The Podestà is to consult the committee on certain points, such as the conditions under which persons will be permitted to deal on the market; the amount of bond which commission merchants are required to place and the maximum percentage they may charge; control over selling operations on the market; reporting of prices; conditions under which transactions and payments are to take place; safeguarding of market supplies and continuity of trading; minimum quality requirements in respect of produce for sale.

Producers, consortia, producers' co-operative societies and wholesale dealers are permitted to sell on markets, without any restriction on their number. Wholesale dealers, manufacturers working up the produce in question, retailers and itinerant salesmen are permitted to purchase on markets, without any restrictions on their number.

A central market committee is established under the Ministry of Corporations for studying problems relating to execution of the above regulations.

The Textile Fibre Market.

The system of pooling and collective sale which had first been applied to hemp in 1936 was extended in 1937 to wool and cocoons.

Wool. — Italy's production of wool does not suffice to meet the country's requirements and large quantities must be imported to supply the wool industry. The deficiency is due to the large diminution in the number of sheep in the country—

(1) *Gazzetta Ufficiale*, No. 8, 12 January 1938. — (2) *G. U.*, No. 283, 7 December 1937.

Changes in Customs Duties since 6 October 1936.

No. of customs tariff	Products	General duty before 6.10.36	Conventional duty	Reduced duties as from				
				6.10.36	2.11.36	20.11.36	21.1.37	30.1.37
		liras	liras	liras	liras	liras	liras	liras
64	Wheat	75.00	—	47.00	32.00	—	—	18.00
65	Rye	36.50	—	—	—	15.00	—	—
66	Barley	14.50	14.70 (3)	8.00	—	—	—	—
918	Oats	24.00	16.00 (3)	8.00	—	—	—	—
67-a	White maize	75.00	—	47.00	32.00	—	—	18.00
67-b	Other maize	30.00	30.00	—	(3)	15.00	—	—
70-a	Wheat flour	115.00	—	72.00	49.00	—	—	27.50
70-c	Rye flour	50.90	—	—	—	24.00	—	—
70-d	Barley flour	(1) 22.00	(2) 22.00	14.00	—	—	—	—
70-d	Oat flour	(1) 22.00	—	14.00	—	—	—	—
70-e	White maize flour	115.00	—	72.00	49.00	—	—	27.50
70-f	Other maize flour	39.80	—	—	(3)	23.00	—	—
71	Semolina	130.00	—	87.00	64.00	—	—	42.50
4, 5, 6	Bullocks, bulls, cows	150.00	85.00 (3)	30.00	—	—	—	—
7	Heifers and young bulls	170.00	85.00 (3)	30.00	—	—	—	—
8-a	Calves up to 300 kg.	250.00	106.00 (3)	38.00	—	—	—	—
8-b	Calves over 300 kg.	220.00	90.00 (3)	32.00	—	—	—	—
19-a	Fresh and chilled meat	300.00	200.00 (3)	80.00	—	—	—	—
19-b-1	Frozen beef	270.00	140.00 (3)	55.00	—	—	—	—
19-b-2	Other frozen meat	270.00	200.00 (3)	80.00	—	—	—	—
11-a	Pigs up to 20 kg.	120.00	—	—	—	(5) 120.00	—	—
11-b	Pigs from 20 to 110 kg.	300.00	—	—	—	(5) 200.00	—	—
11-c	Pigs over 110 kg.	300.00	—	—	—	60.00	—	—
129	Pigfat	200.00	150.00	—	—	—	—	—
130	Salted fat pork	250.00	180.00	—	—	—	—	—
29-a	Fresh butter	(1) 500.00	—	—	(4) 200.00	—	—	—

(1) 15 per cent. *ad valorem* extra up to 5 October 1936. — (2) Conventional rate applies to barley groats only. — (3) Provisional reduction, applying only to merchandise produced in, or shipped from, countries benefiting by most favoured nation treatment. — (4) Reduced rate effective for period from 22 December 1936 to 31 March 1937. — (5) Per head.

a decrease of 1,400,000 head on 19 March 1936 as compared with 1930, when the previous census was taken, and of about 2,500,000 head as compared with pre-war years. The decline in sheep-breeding is due in its turn to the fall in the price of "pecorino" cheese, and, consequently, in that of sheep's milk, and in the price of wool which occurred up to 1934.

In order to improve conditions in the wool market the Government issued the Decree-law of 8 March 1937 (1) providing that wool of every quality must be delivered to pools (*ammassi*) for collective sale, beginning with the 1937 clip. Basic prices for such wool are to be fixed each year, at the beginning of the clip. The basic price fixed for 1938 was 29 liras per kg.

Cocoons. — In order to raise cocoon prices, which had ceased to be remunerative after 1929 and had discouraged rearing, it was likewise prescribed that beginning with the sericultural year 1937, all cocoons must be delivered to pools for drying and for collective sale. Cocoons which are not delivered to the pools cannot be disposed of in any way.

As regards 1937 production, sales made on public markets and between rearers, spinners or other private purchasers directly, are forbidden. By a Decree-law of 29 May 1937 (2), a price of 7 liras per kg. was fixed for fresh cocoons of medium quality in marketable lots and of 1937 domestic production. The specification refers to cocoons yielding 1 kg. silk for every 10 kg. of fresh cocoons.

The Minister of Corporations is to ascertain each year, up to 1941 inclusive, the price of reeled silk and to fix correspondingly the basic price for cocoons.

Premiums in the form of price supplements will be paid during the period 10 June 1937 to 15 June 1942 to exporters of silk products subject to certain conditions intended to ensure that the silk used in the manufacture of the products exported shall be of Italian origin, and to the observance of the regulations regarding home sales and exports.

A National Textile Institute was established under a Decree-law of 28 April 1937 (3) for the purpose of encouraging all efforts to improve and to increase the output and employment of home-produced textile fibres, both natural and artificial. In addition, this body is to carry on publicity for promoting the use of such fibres, either singly or mixed, by the home industry, and to check the results from the technical point of view. It is also to promote the sale of home-produced textile fabrics, to educate consumers in their use, and to check the quality of the fabrics produced and placed on the market.

The Fixing of Prices of Consumers' Goods.

In so far as prices of the main agricultural products were fixed at remunerative levels for producers, it was likewise necessary in the consumer's interest to prevent any pronounced rise in the price of foodstuffs which might have taken place after the devaluation of the lira. With this end in view the Government reduced import duties and introduced a system of price-fixing for the main products entering consumption.

(1) *Gazzetta Ufficiale*, No. 100, 30 April 1937. — (2) *G. U.*, No. 179, 4 August 1937. — (3) *G. U.*, No. 161, 14 July 1937.

The general 15 per cent. *ad valorem* customs duty was abolished and rates were lowered on several products. Rates in force before 6 October 1936, the date of the devaluation of the lira, are given in the table on page 150.

In order to control consumers' prices it is forbidden, under a Decree-Law of 28 April 1937 (1), to sell goods of any kind at prices exceeding the wholesale and retail prices fixed by the Central Corporative Committee or by the provincial councils of corporations within the various provinces. The Central Corporative Committee can, however, permit price changes that are justified by real increases in costs of production or changes in market conditions.

Efforts are being made to achieve an equilibrium between economically interdependent provinces in prices of certain products in order to prevent maldistribution and assure regularity of supplies. To this end the Central Corporative Committee outlined the measures to be taken to provide the basis for price comparisons. Unification of terminology and sale conditions were considered sufficient.

A list of foodstuffs to apply over the whole country was drawn up, and is to be adopted by all provincial corporative councils. This list is intended to establish regular trade names for the principal foodstuffs and to eliminate local or inexact nomenclature; to aid in controlling prices of the most important elements in the cost of living of the working classes; to eliminate price inequalities between provinces, which often are due to variations in nomenclature; and to facilitate ascertainment and verification of maximum prices on a single list of standard type for the entire country, which will eliminate ambiguities and misunderstanding.

The Central Corporative Committee has also extended its control over imports of the principal products entering into consumption in order to adapt foreign trade to the needs of the domestic market. In this way a general price policy is developed under a comprehensive programme embracing both production and consumption.

II. — MEASURES AFFECTING AGRICULTURAL ECONOMY IN GENERAL.

Comprehensive Land Improvement.

The Government has endeavoured to stimulate comprehensive land improvement (*bonifica integrale*) as an integral part of its general agricultural programme, with the object of increasing the cultivable area and the national production. In order that work may proceed smoothly, a good market must be assured for the credit certificates representing the Government's annual contribution towards the expenses of such improvement, and the Treasury has been authorised to convert such certificates into 30-year 5 per cent. bonds—called "credit certificates for financing land improvement"—on the request of holders.

An additional sum of 3 milliards of liras was allocated, by a Decree-law of 13 January 1938 (2), for comprehensive land improvement, to be utilized in regions promising a more rapid and larger return due account being taken of the social aims of the programme, in particular of colonization.

(1) *Gazzetta Ufficiale*, No. 100, 30 April 1937. — (2) *G. U.*, No. 30, 7 February 1938.

NEW ZEALAND

Prosperity exceeding that of any year since 1929 was enjoyed by New Zealand during 1937. The economy of this country is based mainly upon the export of butter, cheese, refrigerated meat and wool, and in each of these lines good price and export conditions prevailed. Total exports during 1937 increased from £NZ56 millions to £ NZ66 millions, with the result that internal trade and imports also reached very high levels. In addition, internal trade was stimulated by heavy government borrowing and increased expenditure on public works and the social services. On the other hand, rising labour costs due to higher wages, the 40-hour week, and government control of industrial relations increased costs of production perceptibly, and there was a general rise in the cost of living index from an average of 86.4 during 1936 to 94.5 in November 1937.

Butter exports from New Zealand during 1937 amounted to 2,976,000 cwt. as compared with 2,796,000 cwt. in 1936, and London prices averaged 110s 5d. and 100s. 8d. per cwt. during the two years respectively. Exports of cheese declined very slightly from 1,658,000 cwt. in 1936 to 1,651,000 cwt. in 1937, but average London prices rose from 60s. 8d. to 66s. 6d. Wool exports declined from 297,000 to 232,000 cwt. but the wool export price index increased perceptibly from 111 during 1936 to 177 for the first 11 months of 1937. Exports of frozen lamb (11 months) amounted to 2,627,000 cwt. against 2,491,000 in 1936 and prices in London averaged 5s. 6½d. per stone (8 lb.) against 5s. in 1936.

The reasons for New Zealand's prosperity during the past year are easily seen from the fact that wool exports realised £18,700,000 (£6,000,000 more than in 1936), butter £16,434,000 (£1,644,000 over 1936), cheese £ 5,282,000 (£173,000 increase) and frozen lamb £8,956,000 (£1,313,000 increase).

With increased export and internal trade, Government revenue was remarkably buoyant. The 1936-37 budget anticipated £5,000,000 more revenue than the year before and this increase was realised. For the current fiscal year ending 31 March 1938 no new taxation is imposed, but a further increase in revenue of £3,650,000 is anticipated. This will not suffice to cover all government expenditure, however, as a large programme of public works and unemployment relief to cost £17,367,000, has been drawn up, and part of this is to be financed by loans. No public loan issue is contemplated and investment funds of the Post Office Savings Bank and other public departments are considered to be sufficient.

I. — MEASURES AFFECTING MARKETS AND PRICES.

Trade Agreements.

The new trade agreement with Canada was described in the last number of this *Bulletin* on page 86. New Zealand had most favoured nation agreements in force on 1 January 1938 with the following countries: Argentina, Austria, Belgium and Luxembourg, Brazil, China, Czechoslovakia, Egypt, Finland, Germany, Greece, Hungary, Italy, Japan, Norway, Spain, and Sweden.

TRADE AND PAYMENTS AGREEMENT WITH GERMANY.

A trade agreement with Germany providing for modifications in customs duties on non-agricultural commodities came into force on 12 October 1937.

Under the New Zealand general tariff provisions, a surtax amounting to nine-fortieths of the customs duty is payable on imports, but exemption is granted on the products specified in this agreement.

In cases where the imposition of a dumping duty appears necessary, the New Zealand Government has undertaken to advise the German Government before imposing such duties, and New Zealand retains the right to impose a dumping duty whenever local industries, or the preferences accorded British countries, are adversely affected.

In return for the concessions outlined above, New Zealand hopes to secure in Germany a market for butter and fruit. During recent years these products have been prevented from entering that country because of exchange restrictions. Under the payments agreement which forms part of the new trade agreement, Germany undertakes to make available for the purchase of New Zealand products the full amount of foreign exchange accruing to Germany from exports to New Zealand, and to allocate a considerable portion of such exchange to the import of butter and apples. The amount allocated will be based on a percentage of the credits accruing to Germany from exports to New Zealand during the preceding year. In the case of butter the purchases will amount to 25 per cent. of such credits up to £400,000 sterling plus 50 per cent. of the credits in excess of that figure.

The payments agreement outlined above comes into force in January 1938 for a period of two years, and unless notice of termination is previously given, it is to continue in force from then on, subject to three months' notice of withdrawal by either party.

TRADE AGREEMENT WITH THE NETHERLANDS.

A trade agreement with the Netherlands was concluded by an exchange of notes on 14 January 1938, by which New Zealand extends most favoured nation treatment on certain specified products of the Netherlands. The latter country, in turn, agrees to import 1,400 metric tons of New Zealand fresh apples during March to June each year at a reduced monopoly fee of 2 centimes per gross kilogramme and to grant a quota of 1000 metric tons per annum for raw animal fats.

Marketing of Exports of Primary Products.

The Primary Products Marketing Act, passed on 15 May 1936, was for the purpose of making "better provision for the marketing of dairy produce and other primary products so as to ensure for producers an adequate remuneration for the services rendered by them to the community." The main provision of the Act was that the Government should take over from producers all butter and cheese (in the first instance) intended for export, paying producers a "guaranteed price" fixed in advance for the year commencing 1 August, and then exporting the produce on its own account.

Guaranteed prices were fixed for the year 1937-38 for butter (basic type) at 13 ¹/₄ pence per lb. as compared with 12 ⁹/₁₆d. for the year 1936-37, and for cheese (basic type) at 7.54d. as compared with 6 ¹³/₁₆d. The United Kingdom equivalent of these prices, which would cover the cost of "pay-out" to New Zealand producers and of marketing in London, would be 112s. and 67s. per cwt. for butter and cheese, respectively, as compared with 106s. and 61s. 3d. for the previous year. During the period from August 1936 to July 1937, the average price in London of New Zealand butter was, 103s. 8d. compared with a guaranteed price equivalent of 106s., and the average price of cheese was 64s. 6d. compared with a guaranteed price equivalent of 61s. 3d. This ac-

counts for the loss which the Government had to meet at the end of the marketing year on 31 July 1937 of about £338,000 incurred through exporting abroad at prices which were, on the average, below the equivalent of the domestic guaranteed price. Average London prices for the period August 1937 to January 1938 were 120s. 8d. and 66s. 3d. for butter and cheese respectively, as compared with guaranteed price equivalents of 112s. and 67s.

Internal Marketing and Price Control.

A far-reaching extension of the Primary Products Marketing Act was made when an Amending Bill passed the House of Representatives on 4 December 1937, establishing an internal marketing organisation.

The Marketing Department is empowered to fix maximum and minimum prices for dairy produce, honey, eggs, and any other foodstuffs prescribed by Order-in-Council. Profit margins and general sale conditions may also be prescribed. The Government may authorise the Department to buy any foodstuffs at fixed prices and export the quantity which is not required for local consumption. An internal marketing account will be kept at the Reserve Bank from which payments may be made for the acquisition of foodstuffs and other costs of the scheme.

Authority is given to the Minister of Finance to provide, through the Reserve Bank, such money as may be required for the financing of transactions under the provisions of the Act.

Another provision of the amendment empowers the Government to vary guaranteed prices already fixed by Order-in-Council.

UNITED STATES

Although the situation in the United States had greatly improved since 1932, there was a rather pronounced set-back in the latter part of 1937. Thus the index of industrial production (1929=100), which was 53.8 in 1932 and had risen to 88.1 in 1936, was 95.8 in January 1937; 97.5 in February; 99.2 in March; 99.2 in May; 95.8 in June; 95.8 in July; 98.3 in August; 93.3 in September; 86.6 in October; 75.6 in November, and 70.6 in December. The falling-off was not apparent in the national income in 1937, the index for which was 94.9 compared with 92.2 in 1936 and 64.9 in 1933. It may be observed, however, in the factory pay-rolls of which the index fell from 89.1 in 1936 to 87.7 in 1937; it had been as low as 55.4 in 1933. There was, in fact, a considerable increase in unemployment towards the end of the year, though up to October it had been steadily declining; the number of unemployed fell, in fact, from 6,282,615 in January 1937 to 4,393,092 in October, but rose to 4,874,924 in December.

In the early part of 1937 the rise in prices (and consequently in costs of production) caused some anxiety lest it should prejudice the efforts to bring about the industrial recovery of the country. Steps were taken to prevent an inflation of credit; the reserves that the Federal Reserve Banks were required to carry against their deposits, were increased by 33 $\frac{1}{3}$ per cent.; the Federal Reserve rediscount rates were raised and all gold coming into the country was "sterilised," that is, set aside and not allowed to serve as a basis for credit. Later, however, the economic set-back caused a partial reversal of this policy. The Federal Reserve rediscount rates were lowered in August and again

in September; the Federal Reserve Open Market Committee announced in September its readiness to purchase Government securities "to provide funds to meet seasonal withdrawals of currency from the banks and other seasonal requirements" (in other words, to facilitate an expansion of credit), and the Treasury released \$300,000,000 from the inactive gold fund and made the proceeds available to the Federal Reserve Banks.

Agriculture had emerged from the depression by the end of 1936, the great surpluses that had weighed so heavily on the markets having been reduced to normal proportions. In part this was due to the control of production by the Agricultural Adjustment Administration, and in part to the severe droughts of 1934 and 1936. Moreover, the industrial revival by increasing the purchasing power of the industrial population, had increased the demand for agricultural products. The relaxation of production control in 1937 and the abundant harvests of that year, added to the decline in industrial production, brought about a fall in agricultural prices in the latter part of the year. The indices of farm prices (August 1909 to July 1914 = 100), which had been 65 in 1933 and 114 in 1936, were 131 in January 1937; 127 in February; 128 in March; 130 in April; 128 in May; 124 in June; 125 in July; 123 in August; 118 in September; 112 in October; 107 in November, and 104 in December. The prices paid by farmers for commodities used in living and production also declined, but comparatively slightly, so that the index of the ratio of prices received to prices paid declined nearly in the same proportion as the index of prices received.

As a result of the high prices in the early part of the year and of the abundant production, the total farm income in 1937 was the largest since 1929. It amounted to \$8,500,000,000 including \$380,000,000 in benefit payments. In 1936, the total farm income was \$7,920,000,000, including benefit payments amounting to \$287,000,000.

The production control exercised by the Agricultural Adjustment Administration was brought to an end at the beginning of 1936 by the decisions of the Supreme Court declaring it to be unconstitutional. The soil conservation programme which has since been in operation, however effective it may be as a long-time programme, only to a very limited extent controls production, and strong efforts were made to induce Congress to adopt some other system by which greater agricultural stability can be secured (1). These efforts resulted, in February 1938, in the passing of the Agricultural Adjustment Act of 1938.

I. — MEASURES AFFECTING MARKETS AND PRICES.

The Agricultural Marketing Agreement Act of 1937.

The provisions of the Agricultural Adjustment Act relating to marketing agreements were not invalidated by the decisions of the Supreme Court which declared the production control provisions unconstitutional. However, it was thought [desirable to re-enact them and this was done, with certain amendments, in the Agricultural Marketing Agreement Act of 1937 (2).

One of the amendments has reference to marketing orders or agreements relating to milk or its products. In fixing minimum prices to be paid to producers or associa-

(1) See the article on "Efforts to Stabilise Agriculture in the United States," in the issue of February 1937 of the *Monthly Bulletin of Agricultural Economics and Sociology*. — (2) Public, No. 137, 75th Congress.

tions of producers, the Secretary of Agriculture must ascertain the prices that will give such commodities a purchasing power equivalent to their purchasing power in the base period. If, however, he finds that such prices are not reasonable, in view of the prices of feeds, the available supplies of feeds and other economic conditions which affect market supply and demand for milk or its products in the marketing area to which the agreement or order relates, he is authorised by the amendment to fix such prices as he finds will reflect these factors, ensure a sufficient quantity of pure and wholesome milk, and be in the public interest.

Another amendment authorises the Secretary of Agriculture to conduct a referendum amongst producers for the purpose of ascertaining whether the issuance of an order is approved or favoured by producers.

A further amendment extends the definition of " interstate or foreign commerce. "

The Agricultural Adjustment Act of 1938.

After many months of discussion during which it was repeatedly modified, the Agricultural Adjustment Act of 1938 (1) was passed by the Senate and the House of Representatives and was signed by the President on 16 February. The Act authorises the continuance of the Soil Conservation Programme, but provides for more effective measures of production control.

Marketing Quotas. — During periods when supplies of any of the major crops are substantially in excess of the " normal supply, " marketing quotas can be fixed. " Normal supply " is defined, in the case of corn (maize), cotton, rice and wheat, as a normal year's domestic consumption, plus an allowance for carry-over, which is to be 7 per cent. for corn, 40 per cent. for cotton, 10 per cent. for rice, and 15 per cent. for wheat. In the case of tobacco, the allowance for carry-over is to be 175 per cent. of a normal year's domestic consumption plus 65 per cent. of a normal year's exports.

Marketing quotas will be proclaimed for corn if the indicated supply exceeds the normal supply by more than 10 per cent., and the penalty for excess marketings will be 15 cents per bushel. For cotton, the supplies must be 7 per cent. above the normal, and the penalty will be 2 cents per lb. during the first marketing year when farm marketing quotas are in effect and 3 cents per lb. in any subsequent year. For rice, quotas will be proclaimed if normal supply is exceeded by more than 10 per cent. and the penalty for excess marketings will be $\frac{1}{4}$ cent per lb. Marketing quotas will be fixed for wheat whenever the total supply at the beginning of any marketing year exceeds a normal year's domestic consumption and exports by more than 35 per cent., and the penalty for marketing wheat in excess of the quota will be 15 cents per bushel. For tobacco, the supplies must be 5 per cent. above the normal; the penalty for excess marketings will be 50 per cent. of the market price or, if the following rates are higher, 3 cents per pound in the case of flue-cured, Maryland, or burley tobacco, and 2 cents per pound in the case of all other kinds of tobacco. Detailed provisions are laid down for allotting the marketing quotas amongst the individual farms.

Before they can become effective, the marketing quotas proclaimed by the Secretary of Agriculture must be approved by a two thirds majority of the producers voting in a referendum.

(1) Public, No. 430, 75th Congress.

Acreege Allotments. — The Secretary of Agriculture is required to proclaim annually acreage allotments for each of the major crops (except tobacco), to be apportioned among States, counties and individual farms.

For corn, the acreage allotment relates only to the commercial corn-producing area and is to be such as will yield in that area a supply which, together with the corn produced in the United States outside that area, will make available a supply equal to a normal year's domestic consumption plus 10 per cent. For cotton, the acreage allotment is to be fixed by States. A national production allotment is first fixed; this is to be the number of bales of cotton which, when added to the carry-over, will make available the normal supply. The production allotment is apportioned between the States, in proportion to the average normal production of each State. Then on the basis of the average yield per acre in such State, the State acreage allotment is determined, and this is apportioned amongst the counties and finally amongst the individual farms. For rice a national acreage allotment will be fixed; it will be such as to make available, when added to the carry-over, a supply equal to the normal supply. In fixing the national acreage allotment for wheat, the supply to be made available will be a normal year's domestic consumption and exports plus 30 per cent.

Commodity Loans. — The Commodity Credit Corporation is directed to make loans on the security of sealed corn (maize) during any marketing year in which the production, as estimated in November, is more than a normal year's domestic consumption and exports; or in any year in which the farm price on 1 October is less than 75 per cent. of parity. If production is not more than a normal year's production and exports, the loan must be 75 per cent. of parity; if between 100 and 110 per cent. of that amount, 70 per cent. of parity; from 110 to 115 per cent., 65 per cent. of parity; from 115 to 120 per cent., 60 per cent.; from 120 to 125 per cent., 55 per cent.; above 125 per cent., 52 per cent.

Loans on this basis will be made only to farmers in commercial corn-producing areas. Growers outside such areas who are co-operating in the Soil Conservation Programme can borrow 75 per cent. of the amounts indicated. When marketing quotas are in effect, non-co-operators in commercial corn areas can borrow 60 per cent. of the amount available to co-operators.

Whenever the wheat crop is larger than a normal year's domestic consumption and exports, or the price is less than 52 per cent. of parity, the Corporation is directed to make loans on the security of wheat amounting to between 52 and 75 per cent. of the parity price, the exact amount being determined by the Secretary of Agriculture with the approval of the President and of the Corporation.

Loans on cotton are to be made on nearly the same basis as the loans on wheat. The Act also provides for the extension of the maturity of the 1937-38 cotton loans to 31 July 1939, and for immediate cotton price adjustment payments of 2 cents. per lb. to growers willing to transfer their title on the 1937 loan cotton to the Commodity Credit Corporation before 1 July 1938.

Loans on dairy products are also authorised.

Parity Payments. — The Act contains a provision authorising parity payments if money becomes available without using the present soil conservation appropriations. In that event, the money is to be divided amongst the basic commodities in proportion to the percentage by which each falls short of parity income.

Crop Insurance. — Voluntary crop insurance for wheat, covering 50 to 75 per cent. of the average yield, is offered by the Act, with premiums payable in wheat or in cash.

Marketing Agreements and Orders.

Marketing agreements and orders were issued during the second half of 1937 in respect of the following commodities: Cauliflowers grown in Oregon; citrus fruit grown in three counties in Texas; potatoes entering into interstate commerce in Michigan, Wisconsin, Minnesota, Colorado, Nebraska, Wyoming, and Idaho; celery grown in Florida. An amended marketing order was also issued in respect of milk in the Boston, Mass., marketing area. The marketing order regulating the handling of citrus fruit grown in Florida, the marketing agreement and license for shippers of fresh peas and cauliflower grown in Colorado, and the marketing agreement and license for gum turpentine and gum rosin processors were terminated.

Diversion Programmes.

Programmes for removing surpluses from the market by diverting supplies to secondary uses were applied during the second half of 1937 to tobacco, potatoes and peanuts, while efforts continued to be made to develop new uses for cotton. Encouragement was also given to the export of wheat from the Pacific Northwest and to the export of pecans.

Purchase of Surplus Products.

The Federal Surplus Commodities Corporation continues to purchase surplus products with the object of diverting from regular commercial channels supplies that weigh heavily on the market and tend to depress prices. The products purchased are distributed to unemployed persons receiving relief.

Amongst the commodities purchased by the Corporation during the latter part of 1937 were cottonseed-oil, rice, peas, beans, potatoes, potato starch and flour, sweet potatoes, apples, pears, dried prunes, milk, butter and eggs.

Loans on Cotton and Corn (Maize).

At the end of August 1937 the Commodity Credit Corporation announced that it would lend to producers of the 1937 crop 9 cents per lb. on cotton classing $7\frac{7}{8}$ inch middling cotton, or better; 8 cents per lb. on cotton classing $13\frac{3}{16}$ inch in staple, and middling or better in grade; $7\frac{3}{4}$ cents per lb. on cotton classing $7\frac{7}{8}$ inch as to staple, but under middling as to grade. The loans were to bear interest at the rate of 4 per cent. and to mature on 31 July 1938.

The Corporation further announced early in November that it would make loans to producers on the 1937 corn crop, the necessary funds having been made available by commitment of \$75,000,000 from the Reconstruction Finance Corporation. The rates of the loan were to depend on the moisture content of the corn and were equivalent to between 44 cents and 50 cents per bushel according to the moisture content. The loans were to be available from 1 December 1937 to 1 April 1938; they were to bear interest at 4 per cent. and to mature 10 months from their respective dates, but in no event later than 1 November 1938.

Trade Agreements.

An Act passed in June 1934 gave the President of the United States power to negotiate trade agreements with other countries. The aim of this Act was to enable steps to be taken to remove some of the most serious obstacles to international trade. In the first two years after the Act was passed, fourteen trade agreements were negotiated. These included agreements with Cuba, Belgium, Haïti, Sweden, Brazil, Canada, the Netherlands and its dependencies, Switzerland, Honduras, Colombia, Guatemala, France and its dependencies, Nicaragua and Finland.

The agreements involved the reduction of United States customs duties or an undertaking not to increase them in exchange for similar concessions on the part of the other countries that were parties to them.

Since the middle of 1936, agreements have only been negotiated with two countries—El Salvador and Costa Rica—but formal notice has been given, as required by the Act, of the intention to negotiate trade agreements with Ecuador, Czechoslovakia and the United Kingdom. The negotiations with the Government of the United Kingdom will also relate to trade with Newfoundland and the British Colonial Empire. Owing to the existence of preferential trade agreements between the United Kingdom, the British Dominions, Southern Rhodesia and India, the negotiations with the United Kingdom seem likely to lead eventually to a revision of trading relations between the United States on the one hand and the various parts of the British Empire on the other. Indeed a preliminary announcement has already been made that negotiation of a trade agreement is contemplated with Canada, with which country a previous agreement was made with effect from 1 January 1936. A similar preliminary announcement has been made as regards Venezuela and Turkey.

II. — MEASURES AFFECTING AGRICULTURAL ECONOMY IN GENERAL.

Extension of the Soil Conservation Act.

Under the original Soil Conservation and Domestic Allotment Act of 1936 it was only until 1 January 1938 that grants of Federal funds or aid could be made direct to producers; thereafter grants in aid were to be made to States which adopted programmes for carrying out the purposes of the Act and set up agencies for administering those programmes. It was felt, however, that the time would not be ripe at the beginning of 1938 for handing over to the States the work of encouraging soil conservation and accordingly an amending act (1) was passed by Congress in June 1937 postponing up to 1 January 1942 the date up to which Federal funds could be directly granted to producers.

The 1938 Soil Conservation Programme.

The Soil Conservation Programme for 1938 was formally approved at the end of October 1937. The programme fixes for each of the principal soil-depleting crops an "acreage goal," that is, a limit within which it is desired that the area under

(1) Public, No. 170, 75th Congress.

the particular crop should be confined. The "goals" will be fixed not only for the country as a whole, but for each individual farm. Payments will be based on the number of acres planted; a farmer can earn the maximum payment by planting his full "goal," whereas payments will become progressively smaller as planted acreage goes either above or below the farm "goal."

The national "goals" and rates of payment established for soil-depleting crops under the 1938 Programme are:—

Crop	1938 "Goal" (acres)		Rate of payment per acre or per unit of yield per acre	
Corn (maize)	92,000,000	to 96,000,000	10	cents per bushel
Cotton	27,000,000	to 29,000,000	2.4	per lb.
Rice	825,000	to 875,000	0.125	" "
Tobacco:				
Flue-cured	850,000	to 900,000	1.0	cent "
Burley	480,000	to 500,000	0.5	" "
Fire-cured and dark air-cured	170,000	to 180,000	1.7	cents "
Cigar filler and binder . .	85,000	to 90,000	0.8	" "
Georgia-Florida type 62 . .	2,800	to 3,000	2.0	" "
Peanuts	1,500,000	to 1,600,000	0.2	" "
Potatoes	3,100,000	to 3,300,000	4 or 6	cents per bushel
General soil-depleting	145,000,000	to 155,000,000	\$ 1.50	per acre, varied for productivity
All soil-depleting	273,000,000	to 288,000,000		

The Farm Tenant Act.

A Committee appointed by the President to inquire into the question of farm tenancy presented its Report in February 1937. The Committee found that for the past 55 years there had been a continuous and marked decrease in the proportion of operating owners of farm land and an accompanying increase in the proportion of tenants. Tenancy had increased from 25 per cent. of all farmers in 1880 to 42 per cent. in 1935. In many cases and areas, tenancy conditions were found to be unsatisfactory to both tenant and landlord and to be objectionable from the point of view of social welfare. Tenancy presented serious problems of insecurity, instability of occupancy, and lack of concern with soil conservation.

The principal recommendations of the Committee, which dealt with other questions affecting farm security as well as the question of tenancy, were embodied in the Bankhead-Jones Farm Tenant Act (1), which was passed by Congress in July 1937.

This Act authorises the Secretary of Agriculture to make loans to farm tenants, farm labourers, share croppers or other persons who obtain, or have recently obtained, the major portion of their income from farming operations, in order to enable such persons to acquire farms. No loan must, however, be made for the acquisition of a farm unless it is of such a size as to enable a diligent farm family to carry on successful farming of a type suitable for the locality in which the farm is situated.

In order to examine applications for loans, to inquire into the character, ability and experience of applicants, and to examine the land in respect of which applications are made, county committees, composed of three farmers residing in the county, are to be appointed for each county. No loan can be made to any person or with respect to any farm unless the county committee has reported favourably to the Secretary of Agriculture.

(1) Public, No. 210, 75th Congress.

Loans are to be of the full amount required to enable the borrower to acquire the farm and to make the necessary repairs and improvements and are to be secured by a first mortgage or deed of trust on the farm. They will be repayable by instalments within a period not exceeding 40 years and interest at 3 per cent. will be payable on the unpaid balance.

The Act authorised the appropriation, for the purpose of making loans for the acquisition of farms, of a sum not exceeding \$10,000,000 for the fiscal year ending 30 June 1938; a sum not exceeding \$25,000,000 for the following fiscal year, and a sum not exceeding \$50,000,000 for each fiscal year thereafter. Sums so appropriated are to be distributed equitably among the several States and Territories on the basis of the farm population and the prevalence of tenancy.

The Secretary is further authorised to make what are known as "rehabilitation loans." There are loans for the purchase of livestock, farm equipment, supplies, and for other farm needs, for the refinancing of indebtedness or for family subsistence. Such loans will only be given to farm owners, farm tenants, farm labourers, share croppers and other individuals who obtain, or recently obtained, the major portion of their income from farming operation and who cannot obtain credit on reasonable terms from any federally incorporated lending institution. The loans will bear interest at 3 per cent. per annum; they will be for periods not exceeding five years, but may be renewed. They must be secured by a chattel mortgage, a lien on crops, or an assignment of proceeds from the sale of agricultural products. To enable the Secretary of Agriculture to make rehabilitation loans, the balance remaining unexpended on 30 June 1937 of certain funds for loans and relief to farmers will be appropriated for this purpose during the fiscal year ending 30 June 1938 and further sums may be allotted to the Secretary by the President out of appropriations made for relief up to 1 July 1939.

The Tenant Act further gives powers to the Secretary to acquire by purchase or otherwise, submarginal lands or lands not primarily suitable for cultivation with a view to withdrawing them from cultivation and putting them to their most beneficial use. For these purposes a sum not exceeding \$10,000,000 may be appropriated for the fiscal year ending 30 June 1938, and a sum not exceeding \$20,000,000 for each of the two fiscal years immediately following.

The Secretary of Agriculture may delegate any of his powers in relation to the acquisition of farms, to rehabilitations loans, and to the acquisition of submarginal land to a corporate body to be set up under the Act with the name of the Farmers' Home Corporation. This body will act as an agency of the Department of Agriculture, and will be administered by a Board of Directors consisting of three persons employed in the Department of Agriculture designated by the Secretary.

The Farm Credit Act of 1937.

An Act, to be known as the Farm Credit Act of 1937 (1), was passed by Congress and signed by the President in August 1937. It contains amendments to the Federal Farm Loan Act and the various other acts under which the farm credit system is operated. The amendments are, in the main, of a technical and administrative character.

One provision of the act authorises the Federal Farm Mortgage Corporation to extend the time within which outstanding mortgage loans may be repaid; this will enable loans made during the depression on second mortgage to be refinanced.

(1) Public, No. 323, 75th Congress. — (2) Public, No. 209, 75th Congress.

Up to 1933, of the seven directors of farm loan associations, four represented farm organisations and three were nominated by the Government. Under the Emergency Farm Credit Act of 1933, a large amount of money was supplied by the Government to the farm-loan banks and it was provided that a majority of the directors, four out of seven, should represent the Government. The Act of 1937 restored the system of selecting directors that existed prior to 1933.

The land banks are authorised by the new Act to accept conditional payments on loans and to hold them, giving interest to the borrower, until such time as the borrower himself directs that they shall be applied in repayment of his loan. It is hoped that in good crop years borrowers will pay sums into a land bank for future application to loans.

Interest on Land Bank Loans.

An Act was passed at the end of July 1937 (2) providing for the continuance for a year of the interest rate of 3 ½ per cent. on federal land bank loans; the rate will rise to 4 per cent. as from 1 July 1938. By the same Act, interest on Land Bank Commissioner's loans were reduced from 5 per cent. to 4 per cent. as from 1 July 1937.

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(*) List of abbreviations: bihebd. (biweekly); bimens. (twice monthly); bimestr. (every two months); déc. (every ten days); étr. (foreign price); fasc. (copy); hebdom. (weekly); int. (home price); irr. (irregular); mens. (monthly); no (number); N. S. (new series); p. a. (per annum); q (daily); sem. (half yearly); s (series); trihebd. (every three weeks); v. (volume); trim. (quarterly).

N. B. — Between brackets [/] are given translations and explanatory notes not appearing in the title of the review.

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MONTHLY BULLETIN

OF

AGRICULTURAL ECONOMICS AND SOCIOLOGY

1938

No. 4

COLONIAL AGRICULTURAL CREDIT

SUMMARY: I. General aspects: Difficulties of the problem of agricultural credit in the colonies. Difficulties due to the human factor. Difficulties due to physical conditions. Difficulties due to the system of land tenure. The absence of a land register often excludes *a priori* the exercise of land credit properly so called. Necessity of preliminary inquiries regarding existing conditions and agricultural possibilities in the regions where credit is to be organised. Agricultural credit in the colonies must be adapted to conditions case by case. The solution to be adopted ultimately depends on the objects in view in the work of colonisation. Colonisation for economic purposes and colonisation as an outlet for surplus population. Types of agricultural credit necessary for the exploitation of the land. The question of funds and of credit institutions. — II. The position in certain colonies: British colonies and protectorates. French colonies and protectorates. Italian colonies. The Netherlands Indies. Belgian Congo.

I. — General aspects.

One of the fundamental problems of the development of colonial territories is that of agricultural credit, a problem which for many reasons is difficult to solve.

When the lands to be developed are virgin lands, it is first of all necessary to provide for the very heavy work of clearing and breaking up the soil, and afterwards, according to circumstances, for drainage or irrigation, for the construction of roads, railways, ports, etc. In this case, it is true, one cannot yet speak of agricultural credit properly so called, but rather of the financing of works of public interest, and, as such, this must fall almost entirely on the State. Agricultural credit comes into play only after the carrying out of the works which make the land ready for cultivation and after the lands have been classified and their boundaries fixed. But the organisation of agricultural credit involves many difficulties on account of the special conditions under which the credit transactions take place. There are difficulties inherent in the very individuals to whom credit must be granted; difficulties connected with the natural conditions of the regions to be colonised; and, lastly, difficulties connected with the system of land tenure and with the vagueness and inadequacy of the security.

As to the first of these difficulties, distinction must be made between the natives and the settlers coming from the mother country. Often the native pop-

ulation is in a very backward state or, at any rate, it is not possible to rely on them for the establishment of credit relations; such relations can only be usefully set up when the natives begin to show an appreciable advance from the economic and social point of view (1). On the other hand, the human factor in production, particularly when of European origin, is apt to deteriorate rapidly in certain climates. A circumstance which increases the risks of colonial agriculture is the necessity of working frequently with a body of irresponsible labourers who have no technical knowledge and do not understand the exigencies of capitalist farming. To this must be added the peculiar mentality of the cultivator, whether white man or coloured, his want of thought and his inability, as a rule, to grasp economic questions.

As for the difficulties connected with the natural conditions, it is sufficient, for example, to think of the tropical regions which, as is well known, possess a climate which causes special diseases, bad crops and also natural calamities. There are countries where, if young plantations, the establishment of which had required great efforts and much money, are abandoned for a few months, sometimes even for a few weeks, they are overrun by a luxuriant vegetation which destroys every trace of the work carried out and reduces the prospect of a crop to nil.

From these circumstances it results that yields are very variable. Capital invested in colonial agricultural undertakings must be prepared for an inevitable alternation of periods of prosperity and depression.

The third group of difficulties encountered in the organisation of agricultural credit in colonial territories is connected with the uncertainty of the conditions of property. It often happens that the very conception of private property does not exist, or that it is confused, in cases where it would be necessary to determine clearly in advance what was the position of the settler or native in the legal system under which production takes place and which regulates the right to dispose of the land and of the other means of production.

The absence of a land register which determines the boundaries of the lands and makes it possible to establish a definite right of ownership excludes *a priori* the exercise of land credit properly so called. The incomplete and uncertain character of the security in general is an obstacle to a really sound system of credit. As regards short-term credit, this disadvantage can be overcome if the lending institution is placed in a position to repay itself, in some way, out of the products in respect of which credit was granted. But it is much more difficult to provide adequate security for long term credit, which requires security based on real property which shall be effective during the whole period of the loan. This condition supposes on the part of the borrower full and complete power to dispose of the property to be colonised and the possibility of furnishing

(1) MAUGINI, Prof. Armando: Rapport sur les méthodes à employer pour développer l'agriculture indigène dans les colonies. In: « Documentation concernant les réunions du Bureau de la Commission pour l'agriculture des pays tropicaux et sub-tropicaux du Conseil international scientifique agricole ». International Institute of Agriculture, Rome, 1932.

the required security. It is necessary, therefore, that the legal system in force should recognise private property in land and that a system of security based on real property should be established under which it would be possible, in case of insolvency, to realise the security furnished. This also necessitates the possibility of attributing to the lands an appreciable commercial exchange value, which they can only have, in the colonies, after a long period of civilisation and of agricultural utilisation, and only in particular districts. Apart from this, in many cases the land is not given in ownership, but under concession; in other words, one is dealing, not with owners but with concession-holders, and with lands devoid of any equipment, of small value and yielding a hypothetical return.

Consequently, the first inquiry to be made is to ascertain the existing conditions and the possibilities of cultivation of the regions where financing is to be organised, taking account also of the distinction between lands granted in ownership or under concession. The difference is fundamental. The concession may be revoked, with grievous consequences in respect of the security furnished to the lending institution (1).

We thus arrive at the conclusion that agricultural credit in the colonies must be organised case by case. It must be adapted to the stage of development of each colony. It is out of the question merely to transfer to overseas possessions the system and methods of the mother-country. While there are peoples that are in a very backward state of civilisation which may be compared to the first infancy of the human race, and feel no urge towards greater well-being, there are others, on the contrary, who enjoy a greater or less degree of civilisation and a flourishing and stable economy. The physical conditions, the state of civilisation of the peoples, the possibilities of establishing a white population, the geographical position, the quality and quantity of the native labour available, etc., determine many different ways of utilising capital.

Moreover, experience has shown that, in colonial agriculture, the periods during which capital values are reconstituted are necessarily longer, especially when agricultural economy suffers from crises and disturbances of various kinds. This is confirmed by the different measures taken to postpone the beginning of the amortisation of loans or to prolong the period of repayment by instalments of existing debts, or to grant loans on special conditions to farmers who wish to consolidate the work that they have already accomplished without involving themselves in further investments of capital.

Lastly, the solution to be adopted ultimately depends on the aims pursued in the work of colonisation. The object in view is either to supply to the mother-country the commodities and raw materials that it requires or to encourage migration towards certain territories as an outlet for surplus population.

In the first case, the choice of crops complementary to the economy of the mother-country must take into consideration the distance between the two mark-

(1) BATTISTELLA, Giacomo: Il credito agrario in colonia. Relazione letta al Congresso di studi coloniali in Firenze nella seduta del 16 marzo 1937.

ets; this affects the cost of transport, and thus exerts an influence on the economic result of the undertaking. Generally speaking, as far as the so-called exploitation colonies are concerned, the distance from the market of the mother-country or, as the case may be, from the world-market, and the dependence on foreign countries, cause much uncertainty in regard to prices and to outlets. In any case, agricultural credit can generally be a useful aid in the encouragement of the cultivation of judiciously selected crops.

In the case of the so-called demographic colonisation, it must be decided in the first instance whether preference should be given to small or to medium-sized holdings; in so doing, account must be taken not only of general considerations, but of the concrete possibilities of the scientific and profitable cultivation of the land. In this case, the strict selection of the settlers has a decisive importance in regard both to successful colonisation and to the good working of agricultural credit. In colonisation for economic purposes, it is rather commercial standards which must be chiefly adopted in the granting of credit; in demographic colonisation, it is social standards.

In any case, three forms of agricultural credit seem to be required in the development of colonies, one or other form prevailing, according to circumstances, but without excluding mixed forms.

Of the three forms of credit, short-term credit supplies capital to meet the current working expenses of an undertaking, that is, for its operation during a year or during two or three years. This form of credit ought to be guaranteed by the product of the year, the sale of which should be carried out on behalf of the financing institution, which would thus be able to recover the sums advanced. In reality, however, such credit is secured by the good faith and solvency of the debtor.

Medium-term credit serves to facilitate the equipment of the undertakings. It completes short-term credit by enabling the farmers to purchase livestock and machines. The native who receives financial support to enable him to stock his land and to acquire modern means of cultivation, becomes attached to the more productive land which then seems to him to be the most reliable factor in well-being. Medium-term credit may also make possible, as we shall see later, the purchase of plant for the transformation of products.

Lastly, long-term credit serves for the purchase of land and for the financing of works the capital invested in which can only be repaid at the end of a comparatively long period. The works for which it is granted have as their object the equipment and permanent improvement of land; this improvement is effected in various ways, by drainage or irrigation, or by cultivation, and embraces all the works connected therewith, from building houses to making plantations, from constructing roads to the systematisation of mountainous regions, from the preparation of land for irrigation to the planting of vegetables and of fruit-trees, etc.

It is easy to see what valuable help this last form of credit can furnish in the development of the land in new countries with immense possibilities. Thus irrigation works may add considerably to the value of land which was previously

regarded as having little or no value. In the same way clearing works, the construction of roads serving the undertakings, the boring of wells, and certain kinds of plantation also require the immobilisation of capital during a fairly long period.

However, long-term credit presupposes a security which will remain invariable during the whole period of repayment. This security usually takes the form of land or buildings; it is, therefore, mortgage security. The question immediately arises whether, in the country under consideration, it is possible to furnish such security in a valid form—in other words, whether a good system of land tenure exists.

But the most important point is, no doubt, what funds are available for credit transactions. It must be admitted that they are still far from being, in most cases, proportionate to the volume of the loans of which the colonial farmers have need. Now, when the economy of the colony is at a stage which does not yet admit of the formation of local savings, the means required for the cultivation of the land must necessarily be supplied by the mother-country. Primitive agriculture, limited to production for the family, was able for a long time to dispense with credit, but as soon as the overseas farmers were asked to cultivate more intensively in order to supply the mother country with the commodities and raw materials of which it had need, colonial agriculture had to employ a considerable amount of capital and this almost always involved having recourse to credit.

Lastly, in regard to the institutions carrying on agricultural credit operations in the colonies, we find ourselves in presence of a great variety. Sometimes it has been endeavoured to set up types of institution resembling those of the mother country, but with the necessary adaptations; sometimes special banking institutions have been established to which the State has often granted particular advantages, even at times contributing to the payment of interest and thereby reducing the cost of money. But a general observation must be made, based on the experience acquired in this matter. Credit to colonial agricultural producers, to be effective, must be adapted to the needs of agriculture, which are different from those of trade and industry, by reason, on the one hand, of the nature and duration of the operations and, on the other hand, of the smallness of the return on the capital invested. Special account must be taken of the difficulties that the farmers have to overcome, particularly at the moment of the establishment of their undertakings. Ordinary banks, which are commercial institutions cannot always take into consideration the special conditions of agriculture. The nature of their operations does not allow them to grant a loan for a sufficiently long period.

Having difficulty in estimating the solvency of the cultivators, by reason of their distance from the centres of production, they are little inclined to grant adequate credit.

The organisation in the colonies of a special system of credit for agriculture has, therefore, been gradually found necessary. This results from the information which we are about to give in regard to certain colonies.

II. — The position in certain colonies.

BRITISH COLONIES AND PROTECTORATES.

We here confine ourselves to considering the position in respect of agricultural credit in certain dependencies of the British Empire (1). We note that, as a rule, there are no agricultural banks or co-operative banks. The credit needs of the natives and of the settlers are usually supplied by commercial banks, either banks of the mother-country which have opened branches in the principal centres of the colonial territories, or local banks. Some agricultural banks must, however, be noted, as well as some co-operative agricultural credit societies.

In connection with credit, there is one effort made by the Governments which deserves special mention—the effort to encourage the accumulation of local savings, not only by constant propaganda, but also by fixing suitable rules for the deposit and withdrawal of funds. In Kenya, for example, as early as 1910, the Post Office Savings Bank began its work of encouraging saving.

But though the system of special agricultural banks is not largely developed, we must note the technical and financial assistance in various forms, including subsidies and loans, furnished so largely by the Governments, particularly with a view to helping the cultivators to overcome special difficulties caused by bad harvests, by pests, or by the fall of prices, such as occurred, for example, during the years of crisis.

To come to the position in some concrete cases, we may note that in 1931, under the terms of the Land Bank Ordinance of 1930, a Land and Agricultural Bank was set up in Kenya (2) and furnished with a capital of £240,000. This capital was raised to £500,000 in 1933 and to £750,000 in 1936. Of this sum, £100,000 was allocated to the purposes contemplated by the Farmers' Assistance Ordinance of 1936, which set up a Farmers' Conciliation Board. In carrying out the decisions of this Board, the Land and Agricultural Bank has acted as an agent of the Government. It grants to farmers for special purposes loans secured by a first mortgage at 6 ½ per cent. interest, repayable in periods not exceeding 30 years. Up to 31 December 1936 the Bank had granted 516 loans to a total amount of £631,260.

By an amendment to the Land Bank Ordinance of 1930, approved in 1934, provision was also made for the granting of short-term loans; 64 such loans had been granted to a total amount of £13,825 up to 31 December 1936.

On the other hand, in order to obviate the effect of the depression of prices—which the settlers in Kenya had felt all the more keenly owing to the fact that during the three years prior to 1930, the yield of the principal crops had been scanty and that the good crops of 1930 arrived on the market when prices had

(1) AN ECONOMIC SURVEY OF THE COLONIAL EMPIRE (1935). Colonial Office, London, 1937.

(2) ANNUAL REPORT ON THE SOCIAL AND ECONOMIC PROGRESS OF THE PEOPLE OF KENYA COLONY AND PROTECTORATE, 1936. London, 1937.

already fallen heavily—the Agricultural Advances Act was passed in June 1930. Most of the loans granted under this act took the form of monthly advances for the payment of labour and for household expenditure; loans were also made for the payment of interest on mortgages and for the payment of 50 per cent. of commercial credits in certain circumstances. The local committees, to which the application of this measure was entrusted, kept a lien on the lands, the livestock and the crops. The general tendency was to help as many persons as possible by small loans.

In Northern Rhodesia, the Government grants loans to cotton-growers and to tobacco-growers and loans for assisting in the general development of agriculture. Further, in order to relieve the situation in which the settlers in the western districts found themselves as a result of the low prices of maize, a sum of £100,000 was voted in 1930 for loans for the erection of buildings, for fencing, for digging wells and for importing livestock. Substantial assistance is also given for the equipment of native dairies and for the improvement of dairying in general (1).

In the Gold Coast there are no agricultural banks but in 1936-37 there were 427 agricultural co-operative societies working under the supervision of the Department of Agriculture; they had a membership of 10,768 and a paid-up share capital of £25,831 (2).

In the Colony and Protectorate of Nigeria, the Government does not take part in any ordinary banking operations. Small loans are granted to farmers to help them and to encourage them to purchase simple machines for the extraction of palm-oil (3).

Turning to the British possessions in the East, there were in Ceylon, on 30 April 1936, 1,008 registered co-operative societies (4), including 3 central co-operative banks, 847 village credit societies with unlimited liability, 27 societies with limited liability, and 1 co-operative mortgage bank. The village credit societies granted, during 1936, loans to the amount of Rs. 1,817,872 (5); 28 per cent. of this sum was devoted to purposes of trade; 16 per cent. to cultivation. The period of the loans was less than six months for 20 per cent. of the sums lent and from six months to a year for 62 per cent.

In the more backward parts of the island the Government continues to lend directly to the societies. But this method of financing will eventually be replaced by the system of independent central banks.

(1) ANNUAL REPORT ON THE SOCIAL AND ECONOMIC PROGRESS OF THE PEOPLE OF NORTHERN RHODESIA, 1936. London, 1937.

(2) ANNUAL REPORT ON THE SOCIAL AND ECONOMIC PROGRESS OF THE PEOPLE OF THE GOLD COAST, 1936-37. London, 1938.

(3) ANNUAL REPORT ON THE SOCIAL AND ECONOMIC PROGRESS OF THE PEOPLE OF NIGERIA, 1935. London, 1936.

(4) CEYLON: ANNUAL GENERAL REPORT FOR 1936 ON THE ECONOMIC, SOCIAL AND GENERAL CONDITIONS OF THE ISLAND. Colombo, 1937.

(5) ANNUAL REPORT ON THE SOCIAL AND ECONOMIC PROGRESS OF THE PEOPLE OF CEYLON, 1936. London, 1938.

In December 1936, a new Ordinance on co-operative societies was issued. Credit societies with unlimited liability have adopted new rules of a more purely Raiffeisen type.

In the Federated Malay States, the Planters' Loans Board grants loans for cultivation and for the erection of buildings (1). In the rice-growing districts societies with limited liability have been formed with the object of supplying credit to their members during the period which elapses between the sowing and the harvest. These seasonal loans must be repaid after the harvest, for the financing of which they are exclusively granted. The societies can only utilise their own funds.

An Agricultural Bank has been in operation in Cyprus since 1925, with a capital of £250,000; it works in close connection with the co-operative credit societies. At the end of 1936, there were 266 co-operative credit societies with 14,706 members, in this British dependency in the Mediterranean (2).

In British Guiana (3), there were, at the end of 1936, 27 co-operative credit societies, registered under the Ordinance of 1933. Amongst these, 24 contained 10,786 members and had a share capital of 81,375 dollars. The capital applicable to the granting of loans is derived from two main sources: from capital subscribed by the members and from Government loans. These latter are repayable in 25 equal annual instalments. The rate of interest, originally fixed at 5 per cent and afterwards raised to 6 per cent., was reduced, from January 1935 to 4 per cent. The amount outstanding to be repaid to the Government at the end of 1936 was \$20,961. Loans are granted exclusively to members, who are small holders growing rice, sugar-cane or market garden crops, producers of coconut oil, pig-breeders, small dairy farmers, small tradesmen, etc. Money is also lent for the repair of buildings or for the purchase of holdings.

During 1935, 23 co-operative banks granted 707 loans, to a total amount of \$21,131. All the banks have adopted a scale for the granting of loans, rising from a minimum of 2 dollars to a maximum of 5 dollars for each share held. In special cases, these limits may be exceeded. The rate of interest most usually charged is 12 per cent. but three banks have reduced the interest to 8 per cent. At the end of 1935, the borrowers numbered 3,532 and the outstanding loans and interest amounted to \$100,000.

According to the Rules for Co-operative Credit Banks, provision has been made for the formation of a reserve fund by allocating annually from the profits a sum equal to 4 per cent. of the paid-up capital. At the end of 1936, this reserve fund, which was invested in approved securities, amounted to \$33,701.

(1) ANNUAL REPORT ON THE SOCIAL AND ECONOMIC PROGRESS OF THE PEOPLE OF THE FEDERATED MALAY STATES, 1936. London, 1937.

(2) ANNUAL REPORT ON THE SOCIAL AND ECONOMIC PROGRESS OF THE PEOPLE OF CYPRUS, 1936. London, 1937.

(3) ANNUAL REPORT ON THE SOCIAL AND ECONOMIC PROGRESS OF THE PEOPLE OF BRITISH GUIANA, 1936. London, 1938.

The Ordinance of 1933, already mentioned, established a Co-operative Credit Banks Board to exercise supervision over the societies.

In Jamaica a law was voted in 1936 authorising the agricultural loan societies (1) which have obtained advances for the purpose out of public funds to grant special loans. The object of the law is to assist agriculture, in all cases of special emergency, through the medium of the Agricultural Loan Societies Board.

FRENCH COLONIES AND PROTECTORATES

Agricultural credit in the French overseas possessions, as in the mother-country, can take three forms: short-term, medium-term and long-term credit (2).

The object of the short-term loans is to enable the farmers to pay the current farming expenses, such as those incurred in the purchase of fertilisers, seeds, implements, and, in general, to assure to them an adequate working capital. These loans also serve to place at the disposal of individual farmers and of their organisations the funds they require while awaiting the sale of their crops. By assuring funds for working expenses to the producers, they make it possible to avoid the sale of large quantities at the same time and thus to stabilise prices at a more remunerative level.

These loans for financing the crops, which are widely granted in the mother country (3), are also frequently granted in the French colonies and have enabled the natives and the settlers more easily to overcome the crisis.

An interesting example of the part played by short-term credit may be found in the transactions of the native thrift societies. These societies grant short-term loans to natives either in kind (loans of seeds, or other requisites), or in money. The societies are very numerous, notably in French West Africa, where they number more than 8,500,000 members. They have been authorised since 1933 to take any steps calculated to improve the conditions in which the manipulation, conservation and marketing of the products of their members is carried out.

Attempts at collective sale have been made in Senegal since the 1933-34 commercial season. They have affected a total quantity of 346,000 kg. of groundnuts: the prices obtained per quintal were higher than those obtained in ordinary trade. In the following season more than 20,000 metric tons were sold through the medium of the native thrift societies which played an important part during the whole of the crisis in groundnut cultivation by sustaining the market for the product.

(1) ANNUAL REPORT ON THE SOCIAL AND ECONOMIC PROGRESS OF THE PEOPLE OF JAMAICA, 1936. London, 1937.

(2) CRAMOIS, André, inspecteur général à la Caisse nationale de crédit agricole de Paris: Le rôle du crédit agricole pour la valorisation économique des colonies tropicales et subtropicales. Rapport présenté à la réunion internationale du crédit agricole, La Haye, 14 juin 1937.

(3) See the paragraph relating to France in the article on «Crop Finance» in the *Monthly Bulletin of Agricultural Economics and Sociology* of October 1937.

Medium-term loans are intended to enable the farmers to buy livestock and equipment, to maintain the farm buildings, etc. They make it possible for the natives and settlers to adopt more up-to-date methods by using improved equipment.

Medium-term credit not only serves to provide the farmer with the requisites for production, but also makes possible the purchase of plant for the transformation of products, which is often even more costly. Loans have been granted, notably in the Ivory Coast and in Guinea, for the purchase of cacao dryers, of oil-mills for the extraction of vegetable oils, of spraying-machines for use in combating diseases of plants, etc. In other colonies loans have been granted for the purchase of rice graders and other machines.

Credit of this kind for the purchase of equipment has been granted both to individual farmers and, preferably, to co-operative societies. In this connection it may be noted that it is advantageous that costly equipment should be purchased and utilised by groups of farmers rather than by the individual farmers, who would not usually have the means of acquiring the equipment and, in particular, would not be able to utilise it economically within the limits of their own production.

The long-term loans are intended to facilitate the purchase, the systematisation or the transformation of small agricultural holdings.

This form of credit enables hardworking and thrifty natives and settlers to acquire the ownership of the land that they cultivate.

Long-term loans have also made it possible for the co-operative societies for the production, transformation and sale of agricultural products to develop their activity. This movement has spread in an interesting way, particularly in North Africa, in the group of old colonies, and in Madagascar.

Mention may be made of the work of the co-operative grain warehouses, wine-making societies, distilleries, oil-mills and threshing societies.

Co-operative societies have also been formed in the French West Indies for the cultivation of bananas. Co-operative sheep-breeding societies have also been established to facilitate the breeding of sheep in suitable districts.

The co-operative tobacco societies (*tabacoops*) of Algeria are societies for the conservation, drying, selection and sale of tobacco; they handle more than two thirds of the total production of Algeria and, as the great majority of the members are natives, they exercise a favourable influence over the cultivation, notably by the establishment of experimental plots in which the plants are selected, and by obtaining more remunerative prices for the planters. In the oases of Southern Algeria and of Tunisia, co-operative societies have been formed for the sale of dates; the members of these societies are exclusively native producers.

The world crisis having pressed hardly on the agricultural producers of the colonies, it became necessary to adopt in their favour special measures based upon credit, viz. maintenance loans and consolidation loans. Many producers would have found themselves compelled to abandon their plantations, of which they could not sell the products, owing to the want of the capital necessary for maintaining them in good conditions for production. With the help of maintenance loans it was possible to safeguard the crops that require large expenditure

of capital, such as sisal in Soudan, the castor-oil plant in Senegal, bananas in Guinea, tea, coffee, rubber and manioc in Indochina and Madagascar.

Measures have been taken, on the other hand, in various colonies, notably in North Africa, to lighten the burden of indebtedness which, in periods of economic depression, weighed too heavily on the natives and on the settlers. Various consolidation banks were set up and loans were granted to repay the debts of farmers whose situation was particularly critical.

As to the funds required to meet the need of agricultural credit in the colonies, the situation is as follows:

The colonial banks, which are usually of recent date, have not yet been able to accumulate substantial reserves as the agricultural credit societies of the mother-country have done. It is, therefore, necessary that they should receive deposits of funds in order to obtain at any rate part of the capital that they need for the granting of rural loans.

In each colony, provision has been made for the co-operation of the local bank of emission, the whole or part of the dues paid by it, being placed at the disposal of the agricultural credit societies.

The agricultural credit societies of the colonies can have discounted by the banks the bills signed by their members and endorsed by the societies themselves.

Lastly, the Law of 10 July 1931 authorised the National Agricultural Credit Bank (Paris) to make advances to central agricultural credit institutions in the colonies or to open short-term credits in their favour up to a maximum of 100,000,000 francs. The funds utilised for these advances are drawn from the reserves of the National Bank up to half the amount of such reserves and from the deposits entrusted to the Bank up to one quarter of such deposits.

In application of this law, a certain number of short-term loans have been granted up to the present by the National Bank to the agricultural credit institutions of Guinea, of French Soudan, of Senegal and of the Ivory Coast.

ITALIAN COLONIES.

Turning to the Italian Colonies, we may note the recent reorganisation of the agricultural credit system which has taken place in Libya as a result of the Decree of 13 May 1937, No. 1,503. The decree distinguishes between farming credit and improvement credit. The first comprises transactions of which the object is to assist the ordinary working of farms that are already, wholly or in part, productive, and in particular, to facilitate the manipulation of products, the purchase of livestock, agricultural machines and implements, and to grant loans on the pledge of agricultural products.

The second group of operations relate to the permanent improvement of the land. The objects contemplated are the following: 1. making of plantations or transformation of methods of cultivation; 2. construction of farm roads; 3. systematisation of land; 4. boring wells and erecting drinking-troughs, making walls or hedges or fencing the land by any other method; 5. construction and

reconditioning of rural dwelling-houses, stables, sheds, barns, etc., as well as premises for the manipulation of products; 6. works for the supply of drinking water, irrigation works, and works for the systematisation, drainage and improvement of land; 7. application of electricity to agriculture, systematisation of mountain lands, reafforestation.

Loans for the following purposes are also considered as improvement credit transactions: 1. completion and maintenance of vineyards and plantations during the period preceding their coming into bearing; 2. purchase of land for the formation of small holdings and the improvement thereof; 3. construction and adaptation of buildings for collective use for the storage and distribution of agricultural goods and the lairage of livestock.

In accordance with their several objects, the different classes of operation mentioned above are subject to different conditions as regards period, security and rates of interest.

Thus loans for the ordinary working of farms and for the manipulation of products mature respectively at the time of the harvest and at the time of the utilisation or transformation of the products. The loans for the purchase of livestock, machines and implements are repaid by annual instalments not exceeding five in number. Loans on the pledge of products mature when the products can be sold without disadvantage to the producers.

Loans for farming expenses are guaranteed by a right of priority. They are made in the form of discounting agricultural bills, which must be endorsed by a person whose signature is an adequate guarantee for the lending institution. In place of a surety, the lending institution may require a mortgage guarantee.

Improvement loans, even if they are made by discounting a bill, are granted after the stipulation of special agreements and are guaranteed by a first mortgage or by a mortgage ranking immediately after the mortgage taken by the colonial administration as guarantee for the payment of the balance of the price of lands on which a concession has been granted, provided always that the mortgage affects these lands.

Loans are given in the form of a bill of exchange which, owing to the nature and importance of the improvement works in question are to be repaid by annual instalments during a period 1. not exceeding five years from the beginning of the operation, when the improvements in question are to be carried out on lands in private ownership and 2. not exceeding 15 years, from the sixth year of the period during which the operation is proceeding, when the improvements are to be carried out on public lands on which a concession has been granted, or on lands in private ownership which are allowed to benefit by State subsidies for colonisation.

In every other case, improvement credit transactions take the form of mortgage loans repayable, within a period not exceeding thirty years, by fixed half-yearly instalments, including capital, interest and incidental expenses.

The repayment of such loans may begin from the year in which the improvements become productive, but, in any case, it must have begun within ten years from the granting of the loans.

The financing of colonisation in Libia from 1926 up to the end of 1936 may be summarised in the following figures (1):

Loans for farming expenses	36,491,071	liras
Improvement loans	3,735,200	"
Agricultural mortgage loans	103,060,982	"
Total	143,287,253	liras

In order to provide the Savings Bank of Libya with the necessary funds for carrying out the present programme of agricultural colonisation, a decree of 12 August 1937, No. 1692 (2) authorised this Bank, as a means of increasing the funds then at its disposal, to issue special bonds to the amount of 400,000,000 liras. With these funds, mortgage loans will be granted for the systematisation and improvement of farms, for the works necessary for the collection and distribution of water for irrigation and for the development of the so called " demographic " colonisation.

Mention must also be made of the decree of 3 April 1937, No. 896, which lays down that the public lands of the colony in question may be granted under concession, even gratuitously, to native cultivators with a view to the cultivation of these lands and to their eventual transfer to the direct ownership of the cultivators. Parcels of land so granted must not exceed 15 hectares for each native cultivator or family of native cultivators. The native concession-holders may benefit by subsidies granted by the Colonial Government for works carried out on the land in preparation for its cultivation. So also may native owners who exploit their lands in accordance with the instructions given to the natives who hold parcels of public lands under concession.

The special characteristics of agriculture in Eritrea and Somalia are in marked contrast with those of agriculture in Libya, and have rendered necessary in these two territories a different technical and financial organisation. Here there was a whole series of problems to be solved or, as in Somalia, the work of colonisation was so complex that it could not be dealt with by simple methods.

In Eritrea an independent service of agricultural loans was at first set up in 1930 by the grant of agricultural subsidies for working expenses out of capital provided by the budget of the colony, but in 1932 a Royal Decree of 22 February, No. 287, authorised the Asmara Branch of the Bank of Italy to supply agricultural credit both for working expenses and for improvement.

(1) BATTISTELLA, Giacomo: La Cassa di risparmio della Libia e la sua attività per il credito agrario. In: « Atti del Convegno degli agronomi coloniali in Tripoli, aprile 1937 ». Sindacato Nazionale Fascista Tecnici Agricoli. Roma, 1937.

(2) A decree dated 27 January 1938, No. 59, contains regulations for carrying out the decree of 12 August 1937.

Subsequently, by a Decree dated 29 December 1932, No. 2052, the Bank of Italy was replaced by the Agricultural Credit Bank for Eritrea.

In Somalia, a Decree of 7 March 1933 authorised a branch of the Savings Bank of Turin, set up at Mogadiscio with an initial capital of 10,000,000 liras, to carry on agricultural credit operations (1). The State, in view of the special economic situation of the colony, assisted the borrowers by paying half of the interest charged on improvement loans and one fifth of the amount of the loan in the case of loans for working expenses.

Owing to the uncertain legal status of the concessions and the absence of a land register determining the boundaries of the lands and their ownership, land credit transactions properly so-called have been excluded.

For each credit transaction, a strict estimate is made of the value of the holding in question and the personal situation of the borrower is inquired into.

Though account is taken of the other crops cultivated, such as maize, cotton, the castor-oil plant, coconuts, kapok, etc., the valuation is based mainly on the production at present the most important and the most remunerative, that of bananas, and on the quantities that can be exported.

To facilitate the sale of this product, which takes place at intervals of about ten days, the Savings Bank above mentioned has invited the concession-holders to devote a certain part (about 15 per cent.) of the periodical profits derived from the sale of their product to the formation of a fund, considered as a special deposit on current account, on which interest is paid.

The rate of interest, formerly fixed at 4 $\frac{1}{2}$ per cent. and at present at 5 $\frac{1}{2}$ per cent. must not exceed by more than 1 per cent. the official rate of discount, and it is increased by a small percentage for the repayment of the expenses of valuation and supervision. In fact, the agricultural expert who carries out the required valuation must also constantly assure himself, in regard to credit transactions for working expenses (from which the purchase of livestock is excluded) that the machines and implements are in fact on the farm and are kept in good condition. He must also carry on propaganda in favour of the improvement of crops.

The amount of the credits applied for must not exceed the half of the value as security of the concession, and the average period of the loans is 15 years for agricultural improvement credit and 5 years for credit for working expenses.

Out of a total of 142 applications made, for an amount of 16,002,565 liras, 19 loans were granted to a total amount of 9,293,250 liras, including 1,241,750 liras for working expenses and 8,051,500 for improvement.

NETHERLANDS INDIES.

The situation, from the point of view of agricultural credit, in the Netherlands Indies is particularly interesting, on account of the striking contrast be-

(1) By Ministerial Decree of 31 January 1938, the Bank of Naples was substituted for the Savings Bank of Turin.

tween the so-called " western " agriculture and the native agriculture practiced in the same colony (1).

Since its origin, western agriculture in the Netherlands Indies has been strictly commercial in character, all the products being intended for export. The agricultural undertakings must, therefore, be organised on a scale sufficiently large to make possible the engagement of a European manager.

Moreover, the products cultivated generally require, before they can be placed on the world market, to undergo a more or less important mechanical manipulation, and the plant for such manipulation can only be profitably run if the quantities to be handled are sufficient. The combination of these three factors makes this type of farming possible only on a large scale, and the agricultural undertaking can, therefore, only be organised on a capitalistic basis. The capital remains master of the undertaking. The planter must accept a subordinate position. Now this state of things has had a considerable influence on the development of agricultural credit. The same economic conditions that make it necessary for agricultural undertakings to be organised as great capitalist industries also make necessary the centralisation of credit institutions.

But often it is not the banks, but rather commercial houses which have taken upon themselves to supply credit to western agricultural undertakings on the condition that the sale of agricultural products shall be entrusted to them on a commission basis: the transactions are carried out by means of assignment contracts. The *Nederlandsche Handelmaatschappij* was the first to undertake this business about the middle of the 19th century. This example was soon followed. Later several banks set up offices in the Netherlands Indies and as there was no great volume of regular banking business to be done they took up assignment contracts, thus coming into line with the commercial houses. These latter, as well as the banks, in order to be able to obtain the commission on sales and to finance the products, undertook to supply credit to the agricultural undertakings for the cultivation of the land and the preparation of the crop.

In the same way, the system of guarantees stipulated in the agreements for loans for a year, called " oogsverband " (advances on crops for a year), shows that the institutions which supply credit are not true banking houses. Such guarantees were indispensable for the sugar and tobacco crops, since the commercial undertakings usually rent the lands to be cultivated for one year, and consequently they cannot serve as security. The nature of the " oogsverband " shows that the guarantee does not apply to the repayment of the sum, but rather to the obligation to deliver the products for sale on commission. It is a guarantee in favour of the commercial houses that finance the agricultural undertakings of which they sell the products. The financing is, therefore, only a means for arriving at the sale of the product.

(1) BOEKE, Prof. J. H.: Le rôle du crédit agricole dans le développement économique des Indes Néerlandaises. Rapport national hollandais présenté à la réunion internationale du crédit agricole, La Haye, 14 juin 1937.

However, as many agricultural undertakings which, for their financing, had entered into engagements with a credit institution, either disappeared or lost their independence, the others endeavoured to remain as far as possible independent as regards finance and, in case of need, to limit the credits obtained to relations for short periods which did not deeply engage them.

We find a confirmation of this tendency to financial independence, for fear of absorption, in an analysis (1) of the balance sheets of 67 tea plantations before and after the "restriction" of 1933, that is, for the years 1932 to 1935 inclusive. Although the "restriction" was introduced in order that the prices might rise and with a view to putting an end to a series of difficult years, only 17 out of 67 undertakings obtained capital from banks in 1932 and the total sum borrowed was only 3,390,000 florins, whereas the capital and reserves of the undertakings amounted to 55,000,000 florins.

With the same object of attaining financial independence the crops are more and more concentrated. A report on the financing of the sugar industry published in 1928, and, therefore, before the great crisis that severely affected the sugar industry in the Netherlands Indies, stated that the course of affairs during the years immediately preceding had considerably relaxed the relations between the sugar plantations and the banks. The greater number of the plantations now possess sufficient capital to be able to dispense with the help of the banks. Their chief anxiety is to invest their reserves to advantage. There is no longer any question of being dependent.

It may be concluded that, in these circumstances, the need of credit has diminished and, in general, that agricultural credit no longer plays an important part for the agricultural undertakings in the Netherlands Indies.

Moreover, even agricultural credit for native land workers has no great importance. Such credit is supplied almost exclusively by a semi-official organisation, centralised since 1934 in the *Algemeene Volkskredietbank*, which has offices in Java, Madura and most of the other islands. In 1936, the total amount of the loans for the rural population did not even amount to 8,000,000 florins, as there are 12,000,000 native cultivators, this is only 0.67 florin per head.

The reason for the smallness of the credit granted to native farms may be found in their pre-capitalistic conditions. The work of the farmer and of his family is almost the only essential factor in the undertaking and the product serves for family consumption. Capital does not enter.

Moreover, the ordinary banks deal with the current credit needs of the plantations. The organisation of a new special bank to assist cultivation is under study (2).

(1) *Ekonomisch Weekblad*, 11 December 1936. Batavia.

(2) Note du Gouvernement des Indes Néerlandaises sur l'adaptation de l'agriculture au niveau moins élevé des prix et à l'état actuel du marché. In: « Documentation concernant les réunions du Bureau de la Commission pour l'agriculture des pays tropicaux et sub-tropicaux du Conseil international scientifique agricole ». International Institute of Agriculture, Rome, 1932.

BELGIAN CONGO.

Up to the present, agricultural credit has not been introduced into Belgian Congo, where the natives do not seem to be sufficiently advanced to make use of it. In Central Africa, the idea of credit and of the obligations involved in it scarcely exists. It is not impossible to introduce agricultural credit, but this can only be done experimentally on a very small scale and for certain natives already more advanced than the great mass of Congolese farmers. Unless one proceeds with caution there is risk of putting indebtedness on the native. An intermediate step has been taken, which enables advances to be made to the natives on the supply of agricultural products.

The introduction of individual farming has been contemplated by the grouping of the individuals in their community and the systematic organisation of advances under the supervision of the State. An experiment has been made in the Congo whereby loans have been granted to the natives who gathered rubber in the form of wages paid in advance for work to be undertaken in fulfilment of a labour agreement. The result was satisfactory (1).

On the other hand, a system of agricultural credit was set up, in two stages, for the benefit of European agricultural undertakings. In the first stage, dating from 16 July 1930, loans were made for the hoeing of plantations of trees and shrubs. Invaded by weeds, which attain a great height and become dry at certain periods of the year, all the plantations would have been destroyed by the annual burning of the Central African bush.

In the second stage, credit was organised in the form of a Temporary Agricultural Credit Fund (Royal Order of 9 July 1931). The Fund can only make loans for coffee, rubber, cacao and oil-palm plantations, and such loans must be guaranteed by mortgage. The money lent can only be utilised to maintain or to extend and to equip them with the plant necessary for the treatment of the products. The loan must not be used to build houses, to purchase live stock, to repay debts or to exploit natural palm-groves. The money is lent for ten years, and interest is charged at the rate of 5 per cent. per annum. Credit is not supplied to undertakings engaged in animal husbandry nor in the cultivation of food stuffs or forage, the security which they could offer not being sufficient to cover the risks.

On 31 December 1935, the sums so lent amounted to 24,226,830 francs. The sums already repaid on the capital advanced amounted to 3,537,365 francs at the same date (2).

According to a subsequent organisation of agricultural credit, loans are granted by a temporary Fund directly administered by the State.

(1) LEPLAE, Prof. E.: Notes sur la crise agricole au Congo Belge. Communication présentée aux réunions du Bureau de la Commission pour l'agriculture des pays tropicaux et sub-tropicaux du Conseil international scientifique agricole. In: « Documentation, etc. », already cited.

(2) Rapport annuel sur l'Administration de la Colonie du Congo belge pendant l'année 1936 présenté aux Chambres législatives. Chambre des représentants. Session de 1937-1938. Bruxelles, 1937.

A permanent agricultural credit institution is contemplated in which the capital would be supplied and the administration undertaken by a special organisation placed under the supervision of the State and guaranteed by it, in which the banks interested in colonial undertakings would participate.

G. COSTANZO.

AGRICULTURAL INSURANCE IN GREECE

SUMMARY: I. *Hail insurance*. — Private companies. — Public Institutions. — Premiums. — Statistical data. — II. *Livestock insurance*.

I.

HAIL INSURANCE.

In 1935 hail insurance in Greece was being conducted by three private companies: the *Helleniki* (a Greek company), the *Abeille-grêle* (a French company) and *Les Assurances générales* (also a French company) and by one public institution, the Agricultural Insurances Institute (1).

Private Companies.

These companies did not begin to conduct this branch of insurance till after the formation of the Agricultural Insurance Institute, of which some account will be given later, and they carried on their business in accordance with the conditions established by that body (2).

Recently the three companies, in view of very unfavourable results in the last few years, decided to form a pool in order to eliminate the prejudicial consequences of competition between themselves. According to the agreement entered into, the companies undertook to participate, on the basis of a proportion fixed in advance, in each insurance policy taken out with either of the three. These companies adopted not only the same conditions of insurance (premiums, commission, general policy conditions, etc.) but also a common service of settlement of claims (3).

The private insurance companies come under the Law on private insurance undertakings, which came into force on 10 November 1917, and which later was incorporated in the provisions of Law No. 2190 on joint stock com-

(1) *L'Argus*, International Insurance Journal, Paris, 3 January 1937, page 23.

(2) ROHRBECK W. Die Hagelversicherung in den Welt, Berichte über Landwirtschaft, published by the Ministry for Food Supply and Agriculture for the Reich and for Prussia and Agriculture, Berlin 1937. Vol. 127, p. 93.

(3) *L'Argus* of 28 March 1937, p. 457.

panies which covers the whole subject. This law reserves the insurance business to joint-stock companies; an exception is made for Lloyd's of London and for the *Istituto Nazionale delle Assicurazioni*.

In accordance with this law, the supervision of private companies is in the hands of the Ministry of National Economy. The supervision is limited to seeing that the insurance companies conform to the provisions of the law and keep to the general principles and the programme laid down. As regards the foreign companies, the formalities required for the permission to operate in Greece are reduced to the necessary minimum and do not greatly differ from those established by the other European countries.

The formalities are as follows: authorisation of the Ministry of National Economy with the approval of the Council of Supervision; creation of guarantee funds under stated conditions and for the sum prescribed by the law; submission of balance sheets; issue of policies in the Greek language; obligation of representatives of foreign companies to be domiciled in Greece.

In 1932, in connection with the abandonment of the gold standard, the Government enacted measures for protecting and safeguarding the national currency. By these measures the Government sought to ensure to the country a larger supply of foreign currency and to prevent the export of the drachma and other money. From this resulted the prohibition of the sending out of Greece of the whole of the premiums paid within the country and the limitation on the amount of money that can be sent to a percentage which does not endanger the economic interests of the country (1).

The guarantee fund provided for by the above mentioned law is fixed at one million drachmas for each branch of insurance with a maximum of two millions for all the branches of the same company. This provision relates to the foreign companies; the national companies are expected to build up a guarantee fund equal to one fourth of their paid up capital. The representatives of Lloyd's are expected to deposit a guarantee fund of 500,000 drachmas for each branch of insurance. This guarantee may be formed either in national currency or in bonds of a value equivalent to the amount prescribed or in real property for half its current value, or in mortgage credits (2).

Public Institutions.

Public action to mitigate, by means of insurance, the effects of damage by hail was taken by the Law of 24 September 1920. This law prescribed the formation of local associations for insuring against the damage of olive trees, vines and tobacco plantations by hail.

(1) *L'Assicurazione*, bi-monthly review of the technique, progress and legal aspect of insurance. Rome, July 1935, p. 160. *La Réassurance*, monthly review of French and foreign reinsurance and insurance. Paris, 19 September 1935, p. 610.

(2) *La Réassurance*, November 1935, p. 725.

The necessary funds for the payment of claims for losses were to be provided by the proceeds of a supplementary tax on the products mentioned above; but in default of the decree which should fix the amount of this levy for each territory, the law in question was not applied.

But after the heavy losses due to hail and frost in the course of 1926, the Government was again compelled to take definite measures (1) which were contained in a Decree Law of 2 July 1926. This decree law after being amended, became the law of 16 July 1929 (2) which provides for the setting up of a central insurance organisation against hail and frost. This office became the Agricultural Insurance Institute in virtue of the law of 29 July 1931 (3).

THE AGRICULTURAL INSURANCE INSTITUTE.

This public institution, placed under the control and supervision of the Ministry of Agriculture, with headquarters at Athens, is required to underwrite direct insurance against hail and frost risks, as well as the reinsurance of local agricultural associations, of mutual insurance societies, and their unions, against hail and frost risks affecting vines, tobacco and other agricultural products to be determined by the Institute.

This institution has been empowered, in accordance with a decision of its Administrative Council, ratified by the Minister of Agriculture, to underwrite direct insurance of, and also to reinsure, risks of other damage due to meteorological conditions. The following are the most important provisions enacted in relation to the organisation and working of the Institute.

DIRECT INSURANCE.

Conditions for taking out a policy. — Any farmer may insure directly with the Institute against hail and frost risks affecting vines, tobacco and other agricultural products. Insurance with the Institute may be made on application of the farmer and after approval by the Institute.

The following conditions must be fulfilled by the farmer seeking direct insurance with the Institute:

(a) he must submit a written application with inventory; this application must state: (i) the surname and Christian name, occupation and domicile of the applicant, (ii) the capacity in which he acts (landowner or tenant), (iii) the nature of the crop insured, (iv) the number of pieces of land, their area and the yield per *stremma*, (v) the value of the unit of produce (estimated according to its current value on the open market); (b) if the applicant is illiterate, the

(1) ROHRBECK W. Op cit. p. 93; WEISS, T. J. *Probleme der Hagelversicherung*, Vienna and Leipzig, 1932, p. 28.

(2) *Journal officiel*, No. 311 of 27 August 1929.

(3) *Journal officiel*, No. 251 of 1 August 1931.

application may be signed in his place by two literate inhabitants of the same administrative area, and their signature must be legalised in his presence by the President of the area in question or by the Mayor; (c) the written applications and the inventory must either be sent directly, against receipt, to the Institute or be remitted, against receipt, to the President or to the Mayor or to persons specially appointed by the Institute in the different administrative areas to conclude insurance contracts. These persons must forward these applications to the Institute within two days of their receipt.

The Institute can fix for each product the time within which these applications can be received.

The insurance takes effect from the day of the approval of the application and of the inventory, and the insured person is notified of the fact by the Institute or by its deputies.

The insurance must be made for one year and continues to remain in force until such time as the insured person declares that he is giving up the insurance or till the Institute informs him that the insurance has expired.

In the case of any change in the ownership of the products insured, the rights and obligations pass to the new owner.

Obligations of the insured persons. — Farmers insured directly must:

(a) Pay the insurance premiums fixed by the Institute on the dates determined by it. These premiums may be increased by decision of the Administrative Council of the Institute for a single region and a single product in relation to the reinsurance premiums paid to the Institute by associations or societies reinsuring with the Institute. Some account of these will be given later. (b) Premiums, on which the payment is in arrears, are treated as taxes in arrears; revenue officers must do what is required on receipt of the list of premiums in arrears, forwarded by the Institute. (c) Damages must be declared within three days. If not so declared within this period, the insured person forfeits his claims to compensation, unless he can produce reasons acceptable by the Institute.

For this purpose the person who has suffered the loss must submit a written application directly to the Institute, or to the President or to the Mayor, who must send it to the Institute within 24 hours.

Premiums once paid can not be returned.

The Institute has the right to modify each year rates premium in respect of both regions and crops, in accordance with experience.

Compensation payments. — The maximum of compensation which the Institute may pay to farmers insured directly with it is fixed by special regulation and cannot exceed in any case 90 per cent.

Assessment of losses. — Losses caused by hail and frost to farmers insured directly with the Institute are assessed by expert farmers appointed by the Institute; there cannot be more than three of these assessors for each administrative area.

These assessors are selected from farmers of repute. Preference is given to those who are insured at the Institute or who are members of agricultural

associations; they take an oath to fulfil the charge laid on them conscientiously and impartially. State agricultural experts, chiefs of the Agricultural Service or of land settlement offices, directors of agricultural stations, or of schools of agriculture, provincial agricultural experts and heads of experimental farms, etc. may be employed for purposes of valuation of damages caused by hail or frost. They may preside at meetings of experts within their administrative area, after appointment by the Institute and on approval by the Ministry of Agriculture.

Private individuals appointed as experts must immediately carry out the orders and instructions of the Institute in general; if they do not conform to these, they are liable to penalties prescribed by Law No. 4402.

Valuation of losses or damage is subject to check by the Institute.

As soon as the Institute receives application for compensation for loss caused by hail or frost, it issues orders within 15 days to its experts to ascertain and assess the losses; the assessors must deal with the matter within 10 days from the date of the order.

Assessment costs are paid by the Institute except when damages claimed are not allowed by the assessor.

The remuneration of experts, whether private individuals or public officials, together with allowances for travelling and other expenses, is fixed by the by-laws of the Institute.

Any person who has deceived or attempted to deceive the Institute with intent to profit thereby in declaring fictitious losses, is by that fact deprived of the right to compensation and may incur further penalties under the law.

If persons suffering from the loss do not accept the expert's assessment of the damage, they may demand a counter-assessment. In this case the application must be presented within five days at latest, reckoning from the day on which the insured person was informed of the result of the valuation.

The Institute, in this case, replaces two of the experts by other persons. This second valuation after being checked by the Institute is regarded as definitive.

The costs of this second valuation are met by the applicant, except in the case when the verdict is in his favour, when half are chargeable to the Institute.

No compensation is paid for losses of less than 10 per cent. of the total value of the crops affected.

REINSURANCE.

Conditions for obtaining reinsurance. — The agricultural reinsurance associations or the special reinsurance societies, in order to have the right to reinsure at the Institute, must fulfil the following conditions:

(a) they must underwrite insurance of vines, tobacco and other agricultural products against both hail and frost risks; they must be organised under, and operate in conformity with, Law No. 3813 on agricultural reinsurance associations; (b) a part of the losses suffered has to be sustained by the

reinsurance organisations, the minimum to be fixed by the Institute; (c) the rules and internal regulation of the associations must be approved previously by the Council of the Institute which may fix a scale of compulsory premiums for them in accordance with the administrative areas and the kinds of crop; (d) no purchases of land or buildings except those indispensable to their business may be made by these bodies and for these the previous consent of the Institute is moreover necessary; (e) at least half of their reserves must be invested in State funds; (f) they must, in addition, conform to all other conditions imposed by the Institute after approval of the Ministry of Agriculture.

Obligations of members. — Bodies contracting reinsurance with the Institute must: (a) receive the contributions of members within the periods fixed by the Institute; (b) if the period has elapsed, they must pay in, in addition to their contributions, 10 per cent. as compensation for delay; (c) their members must insure the whole of their plantations of vines, tobacco and other agricultural products; if they do not, they cannot enforce their claims to compensation; (d) compensation cannot be paid when the loss is less than 10 per cent. The premiums, of which the payment by members of the various associations or special societies is in arrears, are treated in the same way as tax arrears; the organisations are obliged to forward to the revenue officers, immediately after the expiry of the established period, a list on the premiums of which payment is in arrears, for the necessary procedure to be followed.

An association in the same administrative area as that of another association dealing with the same branch of principal or secondary insurance can not reinsure with the Institute. In the event of several reinsurance associations being included in the same administrative area, preference is given to the one the rules of which have been first approved.

The Association securing this preference must accept as members, all the members of the other associations, who fulfil the requisite conditions, provided they make the relevant declaration.

Indemnity payments. — The maximum indemnity which the Institute can grant to those who are reinsured with it is fixed by its special regulations and can in no case exceed 90 per cent.

The reinsurance associations or societies reinsured over five consecutive years which have not received during that time any indemnity payments, pay from the sixth year of insurance reinsurance premiums reduced by 25 per cent., after 10 years and from the eleventh year premiums reduced by 50 per cent.

RESOURCES.

The initial capital of the Institute consists of: (a) the sums received up to 31 August 1923 in virtue of the Decree Law of 29 June 1923 regarding the compensation payable to vine growers who suffered losses from hail; (b) the surplus of the State sulphur copper sulphate and "peronosporin" management.

The sources of annual income of the Institute are as follows: (a) the annual charge prescribed by the Decree Law of 29 June 1923 and which has been in-

creased from 5 to 10 drachmas per hundred Venetian pounds; (b) a charge of six drachmas per hundred kilogrammes of sultanias exported; (c) an annual charge of 4 leptas per oka on wine stored, consumed or transported, and of 2 drachmas on wine exported; (d) the thirteenth part of the total amount of the obligatory levies made on tobacco workers and dealers in favour of the Insurance Fund of workers in tobacco, in conformity with the Decree Law of 29 October 1927; (e) the insurance and reinsurance premiums received; (f) grants made by the various administrative districts (Nomes, Demes, etc.) and by other institutions; (g) fines applied in accordance with Law No. 4402; (h) interest on capital.

A Decree Law, promulgated on the proposal of the Ministry of Agriculture regulates the method of collecting and of paying in to the Institute the levies mentioned; as remuneration for checkers and collectors of these levies a percentage of 1 per cent. at most may be fixed.

In the event of the abolition or replacement of any one of the charges mentioned a Decree Law may, on the proposal of the Minister of Agriculture after consultation with the Council of the Institute, modify the provisions in question with a view to maintaining the amount of the receipts of the Institute.

To the sources of income indicated, Law No. 5219 of 29 July 1931 added:

(a) an annual contribution of 15 centimes per oka or of 10 drachmas per 1000 units on citrus fruits and on fresh and dried fruits; (b) an annual contribution of 5 centimes per oka or of 5 drachmas per 1000 units of citrus fruits or of fresh fruits in general, exported or transported. Citrons are exempt. A Decree published on the proposal of the Minister of Agriculture establishes when contributions should be based on weight or on the other hand on the number of the fruit.

This income is used:

(a) for payment of claims; (b) for payment of administrative expenses and other general expenses; (c) for payment of assessment of damages, and for travelling expenses and remuneration of the experts.

The Administrative Council is responsible for all the expenditure of the Institute. It fixes the procedure to be followed in respect of expenses of all kinds; the provisions relating to expenses in force in the Ministries and other public services are not applicable.

Decree Laws promulgated later on the proposal of the Minister of Agriculture fix the procedure for preparing the balance sheet and inventory of the Institute as well as for the making of payments, and other details.

In the event of the annual receipts not being sufficient to cover the indemnity payments, on deduction of the expenses above mentioned, the reserves may be drawn upon to the extent of 50 per cent. at most.

Further utilisation of a part of the reserves in the course of the following years to pay off indemnity claims cannot be effected except after the reserve capital has been made up to a sum at least equal to the initial capital.

In the event of the Institute's own resources being insufficient to make the compensation payments even after utilisation of 50 per cent. of the reserve,

the Institute may borrow up to the extent of its requirements. The amounts borrowed from the National Bank, the Agricultural Bank or the *Caisse des Dépôts et Consignations* or other credit institutions, are repayable out of the first surpluses of the following years. No fresh loan can be obtained before the repayment of the loan contracted.

Until these loans have been repaid in full, the items of income allocated for this purpose cannot be abolished or reduced or reconstituted so as to diminish the guarantee of the creditors, without their consent.

The Institute may, after a favourable decision of its Administrative Council, issue debentures, within the limits of the clauses and conditions to be fixed by the Administrative Council; to these may subscribe the National Bank, the agricultural banks, the associations and their unions, the producers' insurance societies, the autonomous Currants Organisation, as well as any other public body or body of private persons, but in any case only after decision of the Administrative Council of the Institute.

The Institute, after decision by its Administrative Council, re-insures a part of the risks incurred by it, up to a maximum which it fixes. This reinsurance is made with insurance companies in general whether or not they have offices in Greece, or even with any Banks or recognised organisations in Greece or elsewhere, on conditions fixed by this same Council of Administration.

The capital resources of the Institute are used only for the purpose for which the Institute was set up, and are administered by itself. The financial year begins on 1 April and ends on 31 March.

By a decision of the Administrative Council, permission has been given for investing some part of the capital in guaranteed State bonds and of utilising a part of the reserves for the erection or purchase of a building to be used as headquarters or buildings in connection with this.

RESERVES.

The reserve capital is formed as follows:

(a) by the initial capital of the Institute; (b) by any surplus of ordinary or reinsurance premiums; (c) by donations or bequests; (d) by the indemnity payments granted and not withdrawn by the claimants at the end of one year; (e) by indemnity payments accruing from the fact that the claimants have forfeited their right by fraud or attempt to defraud.

REGULATIONS.

With the exception of the cases prescribed in these provisions, a special regulation drafted by the Administration of the Institute and approved by the Minister of Agriculture regulates the following points:

(a) conditions and limits of insurance and reinsurance; (b) the method of acceptance of the declarations; (c) the method of valuation and checking of losses; (d) the annual insurance and reinsurance premiums according to the risks and taking into account the administrative area and the nature of

the products insured; (e) the responsibility placed on third parties or on State officials of concluding, for the account of the Institute, insurance at rates and on conditions, laid down by its Administrative Council.

The establishment or payment of claims is effected at the latest one month after the gathering of the insured product, but is in no case allowed two weeks before the date fixed for legislative, prefectural, municipal or communal elections.

Any indemnity payment granted and not withdrawn by the claimant within the year reverts to the Institute, and is carried to reserves, the claimant thus losing all rights to it.

Ordinary and reinsurance premiums as well as assessment costs due are accepted in the same manner as public receipts by the revenue officers, and are entered at the National Bank or at the Agricultural Bank to the credit of the Institute.

Administration. — The Administrative Council of the Institute consists of 11 members, *viz.*:

(1) the Director of Agriculture at the Ministry of Agriculture, president; (2) the Director of Agricultural Practice at the same Ministry; (3) the Legal Councillor at the Ministry; (4) a higher official of the Ministry of National Economy; (5) a representative of the National Bank and another of the Agricultural Bank, appointed by the administrative councils of these establishments; (6) a representative of the National Union of Vine-Growers; (7) a representative of the Stock-Breeding Institute; (8) a representative of the Greek Union of Fire Insurance Companies; (9-10) a representative of the reinsurance associations reinsured at this Institute, if the number of these associations exceeds 5, and a representative of the mutual insurance societies.

Detailed provisions regulate substitution of members absent or prevented from attending, voting, and all matters relating to employees, etc.

The Institute is exempt from all taxes, levies, stamp duties and other supplementary duties, postal, telegraphic or telephone charges, and costs of remitting funds.

Supervision and control of the working of the Administrative Council are entrusted to the Council of Inspection consisting of a member of the Court of Public Accounts, as president, of an agricultural expert, a higher officer of the Ministry appointed by the Minister, a head of department of the National Bank or of the Agricultural Bank appointed for three years by the Ministry of Agriculture.

The annual Balance sheet of the Institute drawn up by its Director and approved by its Council is passed to the Council of Inspection, for purposes of checking and for discharge of the responsibility of the Administrative Council. For final approval it is submitted to the Ministry of Agriculture.

From the beginning of the activity of the Institute, the State has ceased to grant relief in money to persons affected by losses from hail or frost; from that time this could and can only be done indirectly by means of grants made to the Institute.

The municipalities and the local government councils, the public services, the associations and societies for agricultural insurance, the special tobacco offices, and in general any corporation having a direct or indirect interest in agriculture, by reason of the object of their undertaking, must supply the Institute with all information required.

In 1936, by virtue of a new law, the Institute of Agricultural Insurances was absorbed by the Agricultural Bank (1).

COMPULSORY INSURANCE FOR FIG GROWERS.

By virtue of the law of 29 July 1931, the whole production of Peloponnesus figs was compulsorily insured at the Agricultural Insurances Institute against hail and frost risks. The losses caused by hail and frost are compensated by the Institute according to the provisions in force for other products.

For insurance against these risks, there was established for the benefit of the Institute an additional levy of 30 centimes per oka on Peloponnesus figs exported or shipped internally. This levy was introduced from 1 August 1931.

COMPULSORY INSURANCE OF CURRANTS.

This insurance, which was in the hands of the autonomous Currants Office, has latterly ceased to be underwritten (2).

In accordance with the law of 29 July 1931, after the termination of the compulsory insurance of currants by the autonomous Currants Office or even after a decision by the Institute to cease operations, the provisions of the Decree Law of 31 November 1927 relating to the annual contributions of currant producers in favour of the Agricultural Insurances Institute, and relating to the underwriting of the insurance of these products by the Institute itself, had to enter again into force.

Premiums.

The premiums are fixed according to the territorial risk and the degree to which the products are liable to hail damage.

The products are grouped in classes: I. natural and sown grasslands, hay, mulberry trees, wheat, barley, maize, potatoes; II. oats, cotton, hemp, flax, sesame, poppy, saffron, peppers, lentils, vetch, lupins, peas, chick peas, artichokes, rice, rye, cucumbers and fig-trees; III. vines, sultana vines, olive trees, beans, green peas, marsh beans, late vegetables; IV. table olives, tomatoes, fruit trees, nursery gardens, plums, currants; V. tobacco and early vegetables.

(1) *L'Argus* of 3 January 1937, p. 23 and of 28 March 1937, p. 457.

(2) *L'Argus* of 28 March 1937.

The difference between the maximum and minimum basic premiums in the different classes of products were as follows: Class I, 0.50 drachmas; Class II, 1 drachma; Class III, 1.50; Class IV, 2; Class V, 2.50 drachmas (1).

Statistical data.

Private Companies.

In the course of 1934 the private companies carrying on hail insurance received premiums to the value of 3,724,705 drachmas and claims amounting to 6,671,886 drachmas.

In 1935 payments of premiums etc. amounted to 2,418,400 drachmas, and the claims to only 1,425,000 drachmas (2).

Agricultural Insurance Institute.

Year	No. of policies	Face value	Premiums paid in (drachmas)	Indemnity payments
1930	4,693	121,985,587	2,585,404	5,528,305
1931	8,759	267,927,960	5,531,819	7,173,768
1932	11,276	253,738,567	4,082,034	3,616,924
1933	5,225	140,521,491	2,856,876	3,227,744
1934	6,525	167,845,082	3,153,374	3,657,928
1935	6,766	197,918,229	3,876,670	2,569,481

Insurance written in 1934 was distributed by products (3) as follows:

	Face value	Premiums paid in (drachmas)
Wheat	70,049,554	545,811
Vines	45,042,342	1,082,201
Tobacco	29,985,853	993,571
Raisins	5,960,113	180,082
Oranges	4,860,102	124,317
Vegetables	2,787,224	42,563
Olives	2,329,301	67,367
Cotton	2,250,050	29,477
Rye and oats	1,862,242	29,472
Bush crops	1,613,092	47,696
Other crops	1,105,210	10,811

(1) ROHRBECK. Op cit. p. 95.

(2) *L'Argus* of 3 January 1937.

(3) EVELPIDI C. Agricultural Insurance (in Greek). Athens 1936, p. 73.

The following table gives figures (1) for the period 1930-34 for the districts affected by, and the number of persons suffering losses:

	Districts	Persons
1930	28	762
1931	50	1,819
1932	43	1,812
1933	45	1,134
1934	50	1,695

II.

LIVESTOCK INSURANCE.

The insurance against livestock mortality is not carried on to any marked extent in Greece; a national company founded in 1927 under the title of Hellenic Live Stock Insurance Company had to suspend activity in consequence of disastrous results during two years of working. Another company conducting this branch of insurance should be mentioned: "The Yorkshire", an English company which had a very limited turnover and discouraging operating results (2).

Much concern was felt by the Government in regard to the problem of livestock insurance, and measures were taken which are contained in the law of 29 July 1931 (3).

From 1935 the Agricultural Insurance Institute has taken over the writing of this branch of insurance. The amount paid in premiums was however small and the claims large (4).

The insurance against losses due to death of, or accidents to, animals is organised as follows:

A special section of the Institute has been placed in charge of direct insurance and of reinsurance by the intermediary of mutual insurance associations or of special societies for livestock insurance founded in conformity with Law No. 381 on agricultural reinsurance associations. The Administrative Council of the Institute has the duty, *inter alia*, of determining the regions in which livestock insurance can be contracted, the kind of stock to be insured, the limits (by province) of the insured value, etc.

Animals can not be insured if:

(a) they are diseased or suspected of being so, or in general bad condition, or old, or obviously ill cared for; (b) they are in quarantine or have been imported within the preceding six months; (c) they have been bought for fattening and

(1) ROHRBECK. Die Hagelversicherung in der Welt. Op. cit., p. 208.

(2) *L'Argus* of 3 January 1937, p. 23.

(3) *Journal officiel* 251 of 1 August 1931.

(4) *L'Argus* of 3 January 1937, p. 23.

resale or for any commercial purpose; (d) they are regularly hired out; (e) they are unusable on account of bad habits (biting, kicking, etc.) or from defects (lameness, bad sight etc.); (f) they are not mainly employed in farming or for breeding.

A first insurance can not be made on:

horses and mules over 12 years old; cows and buffaloes over 10 years old; asses, sheep and pigs over 8 years old; horses, asses and mules under one year; calves under 5 months; sheep under 2 months; sucking pigs under 6 months.

Insurance ceases unconditionally when the insured animals grow old. The limit of old age is fixed at:

20 years for horses and mules; 15 years for asses; 12 years for cows and buffaloes; 9 years for sheep and pigs.

The liability of the Institute in respect of animals that have passed these ages ceases automatically on the due date of the annual premium, even if this does not coincide with the expiry of the insurance policy.

Premiums vary according to the use and the age of the animal.

Insurance for sheep and pigs is made on the basis of the average value of each. For horses, mules, oxen and asses, it is always made per head.

The insured person must insure all animals belonging to a single category, all his horses, all his oxen or sheep, etc.

For each category, the limit of value insured is fixed and it may not be exceeded for any reason whatever.

These maximum limits of value are given in the table on page 197.

Compensation for animals insured above their value is paid on the basis of their actual value at the time of the accident.

The Institute is not liable for loss or damage to animals insured:

(a) when such loss is due to a war, revolution, invasion of wolves, collapse of buildings or theft; (b) to a third party who may be legally held bound to compensate; under this category fall persons killing animals from motives of vengeance or by negligence, etc.; (c) to some failure to observe the clauses of the insurance policy on the part of the owner or even in the event of the owner keeping the animal in a stable other than that mentioned in the contract; (d) when the accident occurs before the lapse of a week after the application for insurance, even if in the meantime the application has been accepted.

The indemnity payment is reduced by half for losses due to an error, want of foresight, or neglect, on the part of the owner.

Under this category fall:

(a) the overworking of animals; (b) want of care in their maintenance; (c) failure to call in a veterinary surgeon in the event of disease or accident, as well as the non-observance of the instructions given by him; (d) the carrying out of an operation or castration by a non-qualified veterinary surgeon; (e) the failure to inoculate the animal in the event of an epidemic.

For the taking out of an insurance, a necessary preliminary is a declaration indicating the surname, christian name, occupation and domicile of the applicant, the number of animals, use to which they are put, their stabling, characteristics, age, as well as any other information required for their identification.

Animals	Premiums (per cent)			Maximum of insured value
	Age (years)			
	3-10	10-15	15-20	
<i>Horses.</i>				
Horses for ploughing or other farm work	2.5	5	10	10,000
Horses used for transport	5	7	—	12,000
Riding horses	3	5	10	20,000
Mares used in oil-mills or quarries	7	10	—	8,000
Foals under one year	6	—	—	2,000
Foals from 1 to 3 years	4	—	—	5,000
	Age			
	2-10	10-15	15-20	
<i>Asses and Mules.</i>				
Asses	3	4	8	5,000
Mules used in farm work and for light work	3	3.5	8	5,000
Mules used mainly for transport	4	6	10	15,000
Mules up to one year old	5	—	—	2,000
Mules from 1 to 3 years	3.5	—	—	5,000
	Age			
	2-8	8-12		
<i>Cattle:</i>				
Calves of 5 months to one year	5	—	—	2,000
Calves from 1 to 2 years	4	—	—	3,000
Steers and draft cattle	3	4	—	7,000
Dairy cows and cow buffaloes	4	6	—	14,000
Bull buffaloes	3.5	5	—	8,000
Bulls	4	3	—	10,000
	Age 1 1/2 - 8 years			
<i>Small Stock.</i>				
Domestic sheep	4	—	—	700
Sheep of nomad flocks	5	—	—	600
Lambs 2 to 18 months	3.5	—	—	300
	Age			
	Under 1 1/2		1 1/2 - 8	
<i>Pigs</i>	4-5	—	6	2,000

The model form of these declarations is established by the Agricultural Insurances Institute; it must be filled up and signed by the person applying for the insurance.

The Institute retains the right not to accept animals for insurance after having inspected them in accordance with scientific methods (inoculation, serums, etc.). Its judgment is final, and it may refuse to accept new insurances without giving reasons to the applicants.

In the event that in the course of insurance the number of animals belonging to the person who has contracted the insurance has increased or diminished, he may proceed to have the policy modified. The modification in respect of animals already insured cannot entail exemption from the payment of the second instalment of the insurance premiums for the year unless their destruction has come about from one of the causes referred to in the Law.

In case of sale, transfer of ownership, or giving away of insured animals, the seller or donor is obliged to impose on the purchaser or beneficiary the obligation of continuing the insurance up to the end of the year at least; otherwise he is obliged to pay the insurance premiums himself for one year. Exception may be made in the case of horses or sheep, after approval of the Institute.

In the event of the same animals being insured with another insurance organisation, the Institute is obliged to pay only the claims falling upon it.

If policyholders desire to move their stock considerable distances so as to secure better nourishment for them, to show them at exhibitions or fairs, or even to transport them by sea or by rail, they must advise the Institute and declare at the same time the period required for these movements, and must pay the additional premiums prescribed by the law.

In the event of disease of, or accident occurring to, the animal insured, the owner must at once inform the Institute by registered letter or by dispatch.

He must summon immediately a qualified veterinary surgeon and follow his instructions.

If an epidemic disease breaks out in a stable or in a fold, the policyholder must inform the management of the Institute immediately, must summon a veterinary surgeon and follow all instructions given him for the prevention of the extension of the disease.

In the event of the death of the animal insured, the owner must report the fact at once by registered letter or by telegram confirmed by letter, both to the management of the Institute and to a legal expert in veterinary matters. The latter must go at once to the place or send an expert to ascertain the fact of death, sending a report signed also by the President of the district or by his deputy.

The carcass must remain close at hand or in a locality shown in the declaration; except in special cases, the animal should not be moved till after the visit of the expert, under penalty of forfeiture of the right to compensation.

An accident not declared within 24 hours to the Institute and to the legal expert is not taken into consideration and the insured person has no claim to compensation.

Seeing that the insurance has no speculative purpose, the insured person can be compensated only for losses actually suffered whatever the amount of the insurance.

The hide and carcase of the animal remain in the possession of the Institute but may be turned over to the insured person.

In regard to costs of examination, the insured person is liable for half and the Institute for the other half. The insured person is liable for all the other costs, of surgeon's visit, medicines, etc.

In virtue of the law published in 1936, the Agricultural Insurance Institute has been absorbed by the Agricultural Bank.

F. ARCOLEO.

INTERNATIONAL CHRONICLE OF AGRICULTURE

ARGENTINA

Owing to excellent crops and high prices for its leading products, Argentina experienced during 1937 the most prosperous year since it emerged from the depression in 1934. Towards the end of the year, however, crop prospects for the 1937-38 agricultural season were decidedly less favourable and a declining tendency in world commodity prices induced caution in the outlook for 1938.

Both imports and exports during 1937 were at a very high level. Exports amounted to 2.3 milliard pesos as compared with 1.7 milliard pesos in 1936, imports totalled 1.6 milliards (1.1 in 1936) and the export surplus was 750 millions as compared with 539.

Exports of wheat during 1937 were 3,887,134 tons (1,610,386 in 1936), of linseed 1,801,281 (1,487,926 in 1936), and of maize 9,085,057 (8,381,690 in 1936). Exports of quebracho amounted to 286,053 tons in 1937 (236,748 in 1936). Wool exports declined from 257,516 tons in 1936 to 212,657 tons in 1937. Exports of hides and skins were practically unchanged at 104,820 tons. The meat-packing business enjoyed a fairly good year both in its export and domestic trade. Exports of meats of all kinds totalled 635,279 tons against 578,993 in 1936.

The increase in value of exports in 1937 compared with 1936 was due to an improvement in prices rather than greater volume. Wheat, maize and linseed average prices rose by 15.9, 27 and 7.6 per cent. respectively; washed wool rose 40.3 per cent., cow-hides 42.1 per cent., frozen beef 31.8 per cent. and chilled beef 2.0 per cent.

Second estimates of the 1937-38 production of cereals and linseed were made in the latter part of February 1938 and show a reduction for all crops over the previous estimate. Wheat production is now estimated at 5,000,000 metric tons (6,782,000 in 1936) and linseed at 1,505,000 (1,936,000 in 1936). New estimates of minor cereals in metric tons are as follows (last year's production is given within brackets): oats 690,000 (792,000), barley 516,000 (650,000), rye 91,000 (190,000). The exceptionally poor crops of this year are to be attributed to a number of unfavourable factors, particularly drought and frost, which heavily reduced the unit-yield.

Apart from the unfavourable crop outlook for the coming year, the trend of exports is also being sharply reversed while imports are rising, with the result that there has been an import surplus on trade account during both November and December.

This is significant in view of the fact that Argentina has very few invisible exports and very large invisible imports. January exports were also disappointing; they were very low by volume compared with 1937 and 1936 although the decline in value was less marked owing to appreciably higher prices (145.7 million pesos in January 1938 against 282.3 in January 1937). Notwithstanding, general business activity during January maintained a fairly high level.

This fall in exports during recent months is not in itself the chief cause of anxiety. Because of the partial failure of all the chief crops, there is little likelihood of the leeway being made up later in the year. The extraordinary recovery of July 1936 when a depressing outlook in Argentina was suddenly reversed by crop failures in the northern hemisphere can scarcely be repeated this year since there will be no large cereal surplus available for export.

I. — MEASURES AFFECTING MARKETS AND PRICES

Trade agreements.

The trade and payments agreement with Germany of 28 September 1934, which was to have expired on 31 December 1937, was prolonged for two years by an exchange of notes. Germany agreed to fix an annual import quota for Argentine frozen beef of 50,000 tons, as compared with 25,000 tons in the two previous years.

An official communiqué of the Argentine Foreign Ministry states that "the possibility has been created that Germany will increase its purchases of wool and other rural products by giving greater elasticity to the administrative measures which regulate the trade in these articles.

Italian 1938 import quotas for Argentine products, under provisions of the most favoured nation trade and payments agreement of 4 March 1937, were announced on 24 December. Italy agreed to increase, as compared with 1937, the lire value of her imports of natural wool, hides, cotton, linseed, butter, casein, fruits, etc. Lower quotas are provided for wheat, refrigerated meat, maize and maize mixtures, quebracho logs, etc. Quotas for meat extracts, oats, barley, preserved meat, etc. are unchanged. Products included in 1938 import quotas but for which no quotas were provided last year include pork, eggs, edible grease and minor cereals.

An unconditional most favoured nation commercial and exchange agreement with Hungary was signed on 24 December. The agreement will become effective following exchange of ratifications. It is to remain in force for 2 years, and, if not denounced 3 months prior to the end of that period, is to continue in effect for successive periods of one year.

Both nations grant to each other unconditional and unlimited most favoured nation treatment in all matters pertaining to customs duties and formalities, taxes, surcharges and the like. Both countries agree to grant the other treatment not less favourable than that accorded any other countries in respect of import permits (1), in respect of the transfer of funds under any system of exchange control and in respect of the rate of exchange for such transfers.

(1) In case either country establishes a system of import permits, it will grant to the merchandise of the other country "fair and the most favourable treatment possible for the products affected taking into account the statistics of normal commercial interchange between both and the total amount of the quotas to be fixed for each product."

Other Measures Affecting Imports.

At the end of the year, a continuance of the 10 per cent. additional import duty, one of the 1931 crisis measures, was decreed.

On 28 January 1938 the Government reduced from 20 to 10 per cent. the surcharge on imports from countries which have a favourable balance of trade with Argentina. At the same time, the Central Bank's support of the peso in the free market was withdrawn, and the value of the peso abroad declined.

A commission has been appointed to study the question of modifying the Argentine tariff, as regards both rates of duty, fixed official customs valuations, and the possibility of adopting the League of Nations tariff nomenclature.

Relaxation of Wheat Export Prohibition.

The export prohibition on wheat and wheat flour, which had been established by a decree of 29 October 1937, was modified by a subsequent decree of 5 November. The original prohibition was established in order to prevent the exhaustion of food reserves that might have resulted from poorer crops during the coming year, of which there was a considerable likelihood on account of the severe frosts in the month of October. Relaxation of this prohibition was made in the light of revised estimates of the new crop.

Under the new decree, the export prohibition will not apply to (1) shipments for which customs house export permits had already been obtained; (2) shipments for which space had been contracted on vessels then in Argentine ports; (3) wheat for the manufacture of macaroni and similar products; and (4) flour regarded as of inferior quality. The export of wheat and wheat flour under conditions other than those mentioned above remains prohibited.

Establishment of Grain Office in London.

The Argentine National Grain and Elevator Commission opened an office in London for the purpose of studying grain and linseed requirements and recommending action to be taken in Argentina in order to adjust production to consumer needs.

The Commission, which was founded in 1936, holds a very important position in Argentina. It has its own laboratories, employs the services of experts of wide experience, and maintains a large corps of inspectors at producing centres, markets and points of export. The Commission consists of five members representing all parties directly concerned with the production and consumption of grain.

The objective of the Argentine Congress in establishing the Commission was to bring about an improvement in grain production and marketing technique so that producers would receive a fair return for their output. The Commission does not actually engage in the production or marketing of grain, but it supervises such activities and makes recommendations wherever improvements seem necessary. It is also entrusted with the annual grading of grain, which was formerly under the control of private grain brokers.

Abolition of Beef Export Subsidies.

After the signing of the new Anglo-Argentine trade agreement of 1 December 1936, under which import duties were imposed on Argentine chilled, frozen and salted beef and veal entering the United Kingdom, the Argentine government granted sub-

sidies on exports of these meats (1). The intention was to assist both exporting firms and stockbreeders, but the measure was considered to be a temporary expedient only, taken with the object of avoiding any sudden dislocation of the livestock industry due to changes in the British import system.

The rate of subsidy was reduced by 75 per cent. in June 1937 and in December, the subsidy was abolished altogether.

Establishment of New Livestock Producers' Organisation.

The Argentine government authorised the establishment of a producer-owned marketing organisation (*Mercados de Haciendas y Carnes*) to specialise in and to improve the marketing of livestock and meat products throughout the country. The functions of this new body are complementary to those of the National Meat Producers' Corporation which was established in 1934.

There was formerly little movement of fresh meats from the large packing plants in coastal cities to interior markets, largely because of lack of cold-storage facilities. As a result, interior markets were unable to obtain meat products of the variety, quality or hygienic condition desired.

The new organisation, is authorised to produce, build and operate stockyards, to construct and operate refrigeration facilities, and to effect such measures as will improve the present mechanism for marketing fresh meats.

The capital of the new body is obtained through the medium of the National Meat Board, which is a government body, from the present 1 per cent. tax on all livestock sales. (The rate of tax has again been fixed at 1 per cent. for 1938). All livestock producers will be shareholders by virtue of, and to the extent of, their contribution through this sales tax.

BELGIUM

In the notes on Belgium published in the January 1938 Bulletin it was pointed out that Belgian agriculture, after an improvement following monetary devaluation, subsequently encountered further difficulties. The margin between the indices of expenses and receipts, expressed as a percentage of the former, rose from 13.1 in December 1937 to 13.5 in January and to 14.2 in February 1938. As regards cereals, maximum prices were reached in April 1937 after which a declining tendency prevailed. From this date to

(1) The system of payment was as follows: For every pound sterling derived from shipments of beef and veal arriving in the United Kingdom after 16 December 1936, 16.65 pesos were credited to the National Meat Board out of the Exchange Profits Fund, to a maximum of 15,100,000 pesos per annum. Exporters otherwise would have received 15 pesos per pound sterling for export bills sold at the fixed rate, which the government in turn sold to importers at a rate of 16 pesos to the pound. Thus, the subsidy of 1.65 pesos per pound sterling represented a rate of about 11 per cent., which tended to support prices by about as much as 3 centavos on the basis of existing prices of 28 centavos per kilogramme. The net effect of the subsidy on domestic prices was somewhat greater since the export bills included local packing house costs, or f. o. b. values.

the end of the year the price of wheat fell from 147.90 francs per quintal to 128.94; rye from 132.41 to 113.32; oats from 117.76 to 110.80; and barley from 123.75 to 113.84.

Also in other branches (animal production) the recovery anticipated previously was not entirely achieved, because prices could not be maintained at a remunerative level.

For these reasons the Government stated recently in a Ministerial declaration that at the present time the agricultural problem is dominated by economic necessities, that every care will be taken to safeguard the domestic market, to expand foreign markets and to restore profit margins in agricultural operations. Efforts will be made with a view to improving technique, increasing yields, improving the quality of produce and reducing the cost of production.

With these aims in view the Minister of Agriculture has just laid before the Senate a Bill for the establishment of an Agricultural Markets Office (*Office national des débouchés agricoles*). This public and autonomous body will have the object of aiding the Ministry of Agriculture in developing domestic and foreign outlets for agricultural and horticultural products. It will collaborate in applying all regulations concerning the presentation, distribution and sale of such products.

A Central Office for Quotas and Licences was set up at the Ministry of the Middle Classes and of Economic Affairs (*Ministère des classes moyennes et des affaires économiques*) by Royal Decree of 27 January 1938 (1).

MEASURES AFFECTING MARKETS AND PRICES.

The Market for Dairy Products.

The market for dairy products is being affected by overproduction, which has caused milk and butter prices to fall below a level remunerative to producers. The Government has outlined a complete reorganisation programme for the dairy industry. Under this programme a National Office for Milk and Milk Products (*Office national du lait et de ses dérivés*) was set up by a law of 15 January 1938 (2). This Office will be a public body, acting under control of the Ministry of Agriculture and operating essentially in the public interest. It is to assist in improving production and modernising the dairy industry, improving the market position, regulating distribution, increasing consumption and avoiding possible conflicts of interests between producers, distributors and consumers.

Improvement of the production of milk and milk products and of the industry connected therewith is to be encouraged by payment for milk according to quality.

Modernisation of the dairy industry will be facilitated through better plant and an improved manufacturing technique with a view to producing finished products which correspond to consumers' needs.

Market improvement will be obtained by organising voluntary testing of all dairy products, the quality of which can be officially recognised.

Five advisory committees will be set up in connection with the Office to deal with milk, butter, cheese, other dairy products, and instruction and propaganda.

Two measures have meanwhile been adopted for supporting butter prices. A Ministerial order of the 1 February 1938 (3) fixed the rate of the special import licence fee

(1) *Moniteur Belge*, No. 33, 2 February 1938. — (2) *Ibid.* — (3) *M. B.*, 27 February 1938.

at 6.50 francs; it had previously been 5.50 francs. On the other hand, the February quota was fixed at 100,000 kilogrammes against 250,000 for January.

The provision of cold storage facilities is contemplated for the months of over-production (March to June).

The Meat Market.

Pork. — The production of pork has undergone wide fluctuations which take the form of successive periods of high and low prices.

It is considered necessary that the remedies chosen shall be such as to moderate the excessive fluctuations in prices without, however, resulting in any deep-seated disturbances in the basic economic conditions which cause these fluctuations. Amongst such remedies importing and exporting appears as the most suitable "regulator" of prices whenever domestic production is suffering from surpluses or deficits.

The Committee for Agricultural Planning (*Commission d'orientation agricole*) established on 23 April 1937 for the purpose of studying general problems of agriculture, proposed the following measures in order to improve the various factors in pig production: (1) improvement of technique by raising pigs specially adapted for meat production and by scientific methods of dry feeding; (2) modification of the specific slaughter taxes according to a new scale of weights; (3) revision of customs duties on alimentary fats; (4) encouragement of export in case of temporary overproduction; (5) co-operative sale and slaughter; (6) establishment of a Bureau for studying and interpreting economic events which might influence market fluctuations.

Beef. — The position of the beef market is more serious. Partly as a result of foreign competition, prices for slaughter stock have not been remunerative to producers. Even if the frontier is completely closed to foreign imports, the situation of producers would nevertheless remain, it appears, very precarious. The solution proposed consists in reducing the cost of production and, on the other hand, the retail price of meat, and generally in seeking a better equilibrium between animal and vegetable production.

Amongst the measures adopted in this regard, there should be noted the Royal Decree of 16 February 1938 (1) regarding the organisation of provincial and national cattle competitions. Subsidies up to a total of 405,000 francs per annum can be allocated to the National Federation of Syndicates of Cattle Breeders and to recognised provincial federations for organising competitions in livestock for reproduction.

There also might be mentioned Government measures towards alleviating difficulties resulting from foot and mouth disease. Farmers who have suffered to a point where continuation of their activities and consequently their possibilities of gaining a living are endangered are entitled to indemnities. Such indemnities are accorded only in respect of affected animals on which declarations have been made and which have had to be slaughtered or which have died. Losses must amount to at least 25 per cent. of the animals in the herd. The indemnity amounts to 2,500 francs for the first cow, 2,000 francs for the second, and 1,500 francs for others, and to 1,000 francs for bullocks or heifers. Calves are not eligible for payments. Farmers are eligible for indemnity payments only if cattle raising is their chief activity and their main source of income.

Finally subsidies will again be granted in 1938 for improvement of cowsheds and construction of silos and manure sheds.

(1) *Moniteur Belge*, 27 February 1938.

Duties on Sugar.

A law of 24 November 1937 (1) reduced the rate of excise duty on sugar and syrups manufactured within the country from home-grown sugarbeets by 40 and 20 francs per quintal respectively.

A supplementary customs duty of 20 francs per quintal is levied on sugar and on the following products with sugar content: (a) cane and beet sugar (juice, raw sugars, refined sugars) (b) other sugars; (c); all kinds of syrups; (d) syrups and caramelised sugar; (e) artificial honey; (f) jams, jellies, marmalades, pastes and concentrated fruit juices.

A special duty of 13 francs per quintal is levied on foreign sugar beets.

The Government can abolish any of the above measures if conditions in the sugar market make it desirable to do so.

Profits resulting from the reduction in excise duty or an improvement in sugar prices as a result of the supplementary customs duty must be passed on by sugar manufacturers to producers of home-grown sugar beets.

In addition the Minister of Finance is empowered to regulate sugar production principally by fixing the output for home consumption of each manufacturer.

This law entered into force on the 1 October 1937.

FRANCE

During December and the early part of January 1938, the foreign exchanges were stable, and sterling in Paris remained at around 147.25. After the middle of January a decline set in and at the end of March the sterling rate was about 162.

The total value of France's foreign trade in January amounted to 6,344 milliards francs and in February to 6.607 milliards, both figures being under the December 1937 total of 6.884. Imports rose considerably in December, declined somewhat during January, and rose during February without, however, reaching the December level. Imports during January and February 1938 were 17 per cent. higher than during the corresponding period in 1937. Exports, after having declined perceptibly during December, rose in January over the November level which had been the highest in the past six years, but fell again in February below the December figure. The total for the first two months of 1938 was slightly more than 37 per cent. above that for the corresponding period in 1937. As a result there has been a slight lessening of the deficit in the trade balance in comparison with the previous year, although the deficit remains at a high level. Trade with the colonies at the beginning of 1938 represented about 25 per cent. of France's total foreign trade.

The index of the volume of French foreign trade, adjusted for seasonal variations and now calculated by the *Statistique générale de la France* on a 1928 base, stood at 56 for January 1938, which was about the same level as a year ago.

Imports of foodstuffs represent about one-quarter (by value) of total French imports, and of this amount about one-quarter consists of products exclusively of exotic origin. The bulk of French imports of foodstuffs comes from the French Colonies. Imports of foodstuffs in the first two months of 1938 increased by almost 12 per cent. as

(1) *Moniteur Belge*, No. 331, 27 November 1937.

compared with the corresponding period in 1937. Exports of foodstuffs represent scarcely 12 to 13 per cent (by value) of total French exports. Furthermore France produces practically no raw materials of agricultural origin. Exports of foodstuffs in the first two months of 1938 increased by about 15 per cent. over the corresponding period of 1937. The index, adjusted for seasonal variations, of the volume of imported foodstuffs rose between December 1937 and January 1938. All indices of the volume of exports adjusted for seasonal variations have risen during these two months.

The general tendency of wholesale price indices during January was towards a rise. In February the general unweighted index (45 articles) remained practically unchanged, while the general weighted index (126 articles), which gives a better reflection of the domestic market situation, returned to its December level. As regards the components of the latter general price index, the weighted index for industrial products displayed a perceptible rise in January and a slight decline of two points in February, while the index for agricultural products and foodstuffs declined by two points in January and nine points in February (625 in February against 646 in December and 634 in January). The decline was greater for products of animal origin than for products of vegetable origin. This decline in the prices of products of animal origin is due to a fall of 6 per cent. in the price of milk in February, as compared with December and January, and especially to the heavy seasonal decline in egg prices. Beef prices held firm; mutton and pork prices continued to rise; veal prices rose to a maximum in February and then declined. As regards products of vegetable origin, there was a decline in the price of secondary cereals and of sugar.

MEASURES AFFECTING MARKETS AND PRICES

Commercial agreements.

The trade agreements with the U. S. S. R. (1), El Salvador (2) and Peru (3) were prolonged up to 31 December 1938. Some modifications were made in the agreement with the U. S. S. R. in respect of a small number of products which are not dealt with in this Bulletin. Salvador grants France duty reductions on champagne wines (2) and Peru consolidated duties on champagne wines and cognac and armagnac liqueurs (3).

A commercial agreement with Sweden was concluded on 2 February which regulates trade between the two countries during 1938. Sweden grants France very advantageous tariff treatment on wines and spirits and consolidates her duties on sparkling wines.

An arrangement with Czechoslovakia was concluded on 3 February which fixes quotas and exchange conditions for 1938.

An agreement with Argentina was signed on 18 February 1938, entering into force the next day. It extends most favoured nation treatment as regards internal taxes. Of total French import quotas, Argentina is granted 10 per cent. for bran, 30 per cent. for maize to be imported directly, 30 per cent. for maize imported temporarily in the compensation trade, 100 per cent. for maize destined for the starch industry, 60 per

(1) *Journal Officiel*, 1 January 1938. — (2) *J. O.*, 31 January 1938. — (3) *J. O.*, 13 February 1938.

cent. for frozen mutton, 10 per cent. for chilled beef, 25 per cent. for meat conserves and 10 per cent. for butter. France obtains duty reductions on cognac. Clauses are included which deal with payments. As regards exchange France will enjoy treatment not less favourable than that accorded any third country. Foreign exchange resulting from the export of Argentine goods to France will be allocated, after deduction of a reasonable sum, in the following order: service on the public debt, payment for French exports to Argentina, and payments in connection with French firms in Argentina. The agreement is to last, in principle for two years, and is then renewable from year to year by tacit agreement. It can be denounced with one month's notice (1).

An exchange of letters of 19 February 1938 between France and Japan completes the provisions of the commercial agreement of 1911. The duration of the new agreement is, in principle, for one year. It contains commercial clauses regarding products not dealt with in this Bulletin and clauses regarding payment for French exports to Japan.

A payments agreement with Romania was concluded on 8 March 1938, replacing the agreement of 7 February 1936. It entered into force on 15 March, and can be denounced with one month's notice (2).

Customs tariff.

The French customs tariff, including the various increases in rates made by the Government under the law of 9 July 1937, was codified by a decree of 12 January 1938 entering into force on 24 January. The new rates on the principal products dealt within this Bulletin are given at the end of this note.

Tariff no.	Classification	Unit	At 1.2.37		At 24.1.38	
			Minimum tariff (3)	General tariff (3)	Minimum tariff (3)	General tariff (3)
			fr.	fr.	fr.	fr.
	LIVE ANIMALS (4).					
4	Oxen.	quint.	159.90	319.80	185 —	370 —
5	Cows	"	159.90	319.80	185 —	370 —
6	Bulls	"	159.90	319.80	185 —	370 —
7	Young bulls, young steers, heifers	"	159.90	319.80	185 —	370 —
8	Calves	"	202.60	405.20	235 —	470 —
9	Rams, ewes, wethers . . .	"	202.60	405.20	235 —	470 —
10	Lambs 10 kg. and under .	per head	15 —	30 —	17.10	37.20
11	Goats, male and female . .	"	12.80	19.20	14.50	21.80
12	Pigs	quint.	239.90	479.80	275 —	550 —
13	Sucking pigs 15 kg. and under	per head	34.70	69.40	40 —	80 —
14	Live game	quint.	85.30	170.60	105 —	210 —
14-III	Live poultry	"	186.60	293.20	225 —	350 —
14-IV	Live pigeons (other than carrier)	"	64 —	106.60	192 —	255 —
14-V	Rabbits (domestic)	"	104 —	156 —	200 —	265 —

(1) *Journal Officiel*, 19 February 1938. — (2) *J. O.*, 12 March 1938.

(3) These rates include various special taxes which have been added to the customs duties.

(4) Pure bred animals may enter free of duty under conditions established by orders of the Minister of Agriculture and if they are destined for stock-raising syndicates.

Tariff no.	Classification	Unit	At 1.2.37		At 24.1.38	
			Minimum tariff	General tariff	Minimum tariff	General tariff
			fr.	fr.	fr.	fr.
	MEAT.					
16-a	Fresh and chilled meat:					
1	Mutton	quint.	289.20	566.40	335 —	655 —
2	Pork	"	399.80	799.60	460 —	920 —
3	Beef and other	"	289.20	566.40	335 —	655 —
16-b	Frozen meat:					
1	Pork: bacon and lungs	"	188 —	332 —	220 —	385 —
2	Pork: other pigmeat	"	237.20	450.40	275 —	520 —
3	Beef and other	"	188 —	332 —	220 —	385 —
17	Salted meat:					
1	Pork: bacon and lungs	"	399.80	719.60	465 —	830 —
2	Pork: other pigmeat	"	506.40	932.80	590 —	1080 —
3	Beef and other	"	266.60	357.20	315 —	420 —
17-II	Prepared meat, uncooked:					
1	Pork: bacon and lungs	"	487.80	855.60	570 —	990 —
2	Pork: other pigmeat	"	610.40	1100.80	710 —	1270 —
3	Beef and other	"	311.80	375.90	370 —	445 —
	Prepared meat, cooked:					
4	Pork	"	535.80	951.60	625 —	1100 —
5	Other	"	327.90	434.80	390 —	515 —
17-III	Pork-butter's produce:					
1	Dry sausages	"	733 —	1346 —	850 —	1550 —
2	Other (excluding liver pa- tés)	"	653 —	1186 —	760 —	1370 —
17-IV	Ox cheek, sliced	"	191.90	287.90	220 —	330 —
18	Poultry, dead:					
1	Not truffled	"	266.60	373.20	325 —	450 —
2	Truffled	"	557.80	879.60	665 —	1030 —
	Game, dead:					
1 et 3	Not truffled	"	85.30	170.60	105 —	210 —
4	Truffled	"	265.60	531.20	315 —	630 —
18-III	Domestic rabbits, dead	"	226.60	279.90	275 —	335 —
18-V	Goose or duck liver	"	170.60	341.20	210 —	420 —
19-a	Pork, preserved	"	586.40	1012.80	690 —	1180 —
19-b	Other meat, preserved	"	610 —	1220 —	415 —	520 —
19-c	Truffled meat, preserved:					
1	Pork	"	693 —	1226 —	810 —	1420 —
2	Other	"	426.50	559.80	505 —	860 —
19-II	Game, poultry, pigeon or rabbit preserves:					
1	Not truffled	"	199.60	299.30	230 —	345 —
2	Truffled	"	235.80	380.90	275 —	440 —
19-III	Liver pâtés:					
	Goose or duck liver:					
1	Not truffled	"	453.50	680.20	520 —	780 —
2	Truffled	"	634.90	952.30	730 —	1100 —
	Other:					
3	Not truffled	"	394.50	789 —	450 —	900 —
4	Truffled	"	533 —	1066 —	610 —	1220 —
	DAIRY PRODUCTS.					
35-I	Milk	quint.	10 —	15 —	10 —	15 —
35-II	Cream of milk	"	60 —	90 —	60 —	90 —

Tariff no.	Classification	Unit	At 1.2.37		At 24.1.38	
			Minimum tariff	General tariff	Minimum tariff	General tariff
			fr.	fr.	fr.	fr.
35-III	Milk condensed, unsweet- tened:					
	Liquid or in paste, in recep- tacles:					
1	Weighing more than 1 kg.	quint.	25 —	37.50	25 —	37.50
2	Weighing 1 kg. or less. .	»	30 —	45 —	30 —	45 —
3	Solid	»	60 —	90 —	60 —	90 —
35-IV	Milk, condensed, with sugar content:					
	Less than 42 %:					
1	In liquid or in paste . .	»	100.50	201 —	100.50	201 —
2	Solid	»	110.70	211.40	110.70	211.40
	From 42% exclusive to 50% inclusive:					
3	In liquid or in paste . .	»	117.90	235.80	117.90	235.80
4	Solid	»	128.20	256.40	128.20	256.40
5	50 % and over	»	174.30	348.60	174.30	348.60
35-V	Milk food, with sugar content:					
1	Less than 40 %	»	100.50	201 —	100.50	201 —
2	From 40 % inclusive to 50 % exclusive	»	117.90	235.80	117.90	235.80
3	50 % and over	»	174.30	348.60	174.30	348.60
36	Cheese:					
1	Hard cheese weighing each more than 65 kg. with fatty content 45 % and more of the weight of the dry substance	»	110 —	180 —	120 —	190 —
2	Other	»	180 —	280 —	200 —	300 —
37	Butter	»	906.20	1652.40	1060 —	1920 —
	CEREALS.					
68	Wheat:					
1	Grain	quint.	85.30	170.60	96.30	192.70
2	Crushed and grist.	»	136.50	273 —	154.20	308.40
	Flour, with extraction rate:					
3	70 % or more	»	136.50	273 —	154.20	308.40
4	between 70 % and 60 %	»	170.60	341.20	192.70	385.50
5	60 % and under	»	197.30	394.60	222.90	445.80
69	Oats:					
1	Grain	»	44.70	87.40	72 —	144 —
2	Crushed and grist.	»	62.90	125.80	69 —	138 —
3	Meal	»	70.90	141.80	81 —	162 —
70	Barley:					
1	Grain	»	43 —	84 —	49 —	98 —
2	Crushed and grist.	»	60.50	121 —	69 —	138 —
3	Meal	»	68.20	136.40	78 —	156 —
71	Rye:					
1	Grain	»	44.70	87.40	51 —	102 —
2	Meal	»	85.30	141.80	98 —	196 —
72	Maize in grain:					
1	" Small grain "	»	27.60	53.20	32 —	64 —

Tariff no.	Classification	Unit	At 1.2.37		At 24.1.38	
			Minimum tariff	General tariff	Minimum tariff	General tariff
			fr.	fr.	fr.	fr.
2	Other than "small grain" destined for starch and glucose industry. . . .	quint.	29.70	57.40	34 —	68 —
3	Other	"	44.70	87.40	51 —	102 —
4	Crushed and grist. . . .	"	68.30	136.60	78 —	156 —
5	Meal.	"	76.80	153.60	88 —	176 —
73	Buckwheat:	"				
1	Grain	"	76.80	153.60	88 —	176 —
2	Crushed grain and grist .	"	37.70	50.80	45.50	67.50
3	Meal.	"	57.40	78.80	70 —	95 —
74	Malt	"	76.90	153.80	88 —	176 —
	SUGAR.					
90-a	Raw sugar, produced in French colonies:					
1	For refining purposes . .	(1)	(3) 99.50	(3) 99.50	(3) 103.36	(3) 103.36
2	Other	(2)	(3) 100.50	(3) 100.50	(3) 104.40	(3) 104.40
90-b	Refined sugar, produced in French colonies	(2)	(4) 102.75	(4) 102.75	(4) 114.12	(4) 114.12
91-a	Raw sugar, produced in foreign countries:					
	For refining purposes, the estimated yield being:					
1	98 % and less	(1)	69.40	439.30	273.26	443.16
2	Over 98 %	(2)	74.80	449.10	278.10	453 —
	Not intended for refining purposes, the estimated yield being:					
3	98 % and less	(5)	270.40	440.30	274.30	444.20
4	Over 98 %	(5)	276.80	451.10	280.70	445 —
91-b	Refined sugar, produced in foreign countries . . .	(5)	277.05	451.35	280.95	455.25
	WINES.					
171-II	Table wine:					
1	Up to 12 degrees	hl.	89.60	358.40	105 —	420 —
	From 12.1 degrees:					
2	On the first 12 degrees. In addition, for every degree or fraction of degree above	"	89.60	358.40	105 —	420 —
3	12 degrees	"	14 —	14 —	15.90	15.90
4	Sparkling wine, in bottles.	quint.	149.30	597.20	175 —	700 —
5	Wines other than sparkling, in bottles	"	191.90	767.60	220 —	880 —
171-III	Liqueur wines:					
1	Other than in bottles, flasks, etc.	(6)	10.70	48.20	12.10	48.40
2	In bottles, flasks, etc. .	quint.	222.72	734.52	269.88	854.80

(1) Per quintal of refined sugar. — (2) Per quintal actual weight. — (3) This rate represents only the internal consumption tax, as sugar produced in the French Colonies is admitted free of duty. — (4) This rate represents only the internal consumption tax and the refining tax as sugar produced in the French Colonies is admitted free of duty. — (5) Per quintal actual weight. — (6) Per degree and per hectolitre on the whole alcohol, actual and potential.

Tarif no.	Classification	Unit	At 1.2.37		At 24.1.38.	
			Minimum tariff	General tariff	Minimum tariff	General tariff
			fr.	fr.	fr.	fr.
174	Spirits:					
	Rum and tafia:					
1	In bottles, jars, etc. . .	hl.	978.30	2737.20	1220 —	3230 —
2	Otherwise put up	(1)	1370.30	3129.20	1770 —	3780 —
	Other:					
3	In bottles, jars, etc. . .	hl.	948.30	2707.20	1190 —	3200 —
4	Otherwise put up	(1)	1310.30	3069.20	1710 —	3720 —

(1) Per hectolitre of pure alcohol.

The Wheat Market.

The Central Council of the Wheat Office decided that there was no reason to anticipate importation of foreign soft wheat for meeting 1937-38 needs and that a certain amount of foreign hard wheat might, if the occasion arose, be imported, taking into account the reservations demanded by the representatives of the Algerian producers. The Council raised the monthly premium from 1.50 to 2 francs per quintal, effective 1 February 1938 (1).

The system of previous export in the compensation trade was extended to gluten, wheat starch (2), and wheat for seed (3).

The Maize Market.

The quota of foreign maize to be imported during the first and second quarters of 1938 was reduced to 160,000 quintals, as compared with 250,000 for the corresponding quarter of 1937. An additional 250,000 quintals can be imported temporarily each quarter as in 1937. The import of maize cakes remains forbidden (4). The quantity of maize in grain grown in Camerouns, to be admitted free of duty into France and Algeria was fixed by a decree of 8 February 1938 at 6,000 tons (5).

The Milk Market.

In February 1938 the Committee for the Supervision of Prices reported a fall in milk retail prices in Paris. It is having an inquiry into milk prices for different periods carried out.

The Sugar Market.

Foreign imports. — A licence tax of 22 francs per quintal on foreign sugar was established by a decree of 11 February 1938 (6).

(1) *Journal Officiel*, 1 February 1938. — (2) *J. O.*, 12 January 1938. — (3) *J. O.*, 14 February 1938. — (4) Order of 31 December 1937; *Journal officiel*, 1 January 1938. — (5) *J. O.*, 11 February 1938. — (6) *J. O.*, 13 February 1938.

Market Organisation. — By a decree of 9 March 1938 (1) there was established under the Ministry of Agriculture a committee charged with examining all questions relating to the fixing of quotas in respect of sugar production in France and the Colonies, to exports, and to the releasing from stores of sugar stocks constituted from surplus French and Colonial production.

French Quotas for Colonial Sugar. — On 7 March 1938 French and Colonial sugar producers passed resolutions which were officially approved by the Government and embodied in a decree of 8 March (2). For the season ending 30 September 1938 Colonial sugar may constitute 14 per cent. of the total of French production *plus* imports from the Colonies, 14.75 per cent. for the season 1 October 1938 to September 30 1939, and 15 per cent. for subsequent seasons.

In addition to the quotas so fixed, Colonial producers may import 30,000 tons of sugar during the season 1937-38. On the other hand, the Colonies may import 10,000 tons however over and above their regular quotas during the season 1938-39, provided that imports are reduced during the following two seasons by 4,500 tons in relation to their regular quotas. Import deficits, in relation to these quotas, may serve to compensate excess production in France, and similarly, a deficit in French production may be compensated by supplementary imports from the Colonies.

The penalties provided for under article 4 of the decree-law of 27 August 1937 (3) apply, as from 1 July 1938, to Colonial sugar imported in violation of these agreements (4).

Prohibition for sanitary reasons.

The measures taken in November 1937 which allow exceptions to the import and transit prohibitions of May 1937 (5) in respect of pigs and cattle from French North Africa were replaced by new measures decreed in January 1938 (6).

Pigs and cattle from North Africa will henceforth be disembarked in Continental France at the ports of Marseille, Bordeaux, and Port-Vendres, to be transported directly to public or regularly-inspected industrial abattoirs. A decree of 8 January 1938 allows exceptions in respect of sheep and goats from these countries arriving at the same ports and under the same conditions of destination (7).

An order of 30 March 1938 admits into France under the same conditions pigs, cattle, sheep and goats from North Africa through the port of Sete (8).

UNITED KINGDOM

There has been in recent months some deterioration in the general economic situation in the United Kingdom. The number of insured workers unemployed, which on a monthly average was 1,310,000 approximately in the third quarter of 1937, rose to 1,448,000 for the fourth quarter and the figure for the month of January 1938 was 1,729,000; for January 1937 the figure was 1,604,000. The Board of Trade Index Number of Wholesale Prices (1930 = 100) has fallen from 107.6 in December 1937 to 105.8 in February 1938; the corresponding figures twelve months earlier were 100.8 and 103.9.

(1) *Journal officiel*, 13 March 1938. — (2) *J. G.*, 9 March 1938. — (3) See the International Chronicle of Agriculture in the January number of this *Bulletin*. — (4) *J. O.*, 13 March 1938. — (5) For these prohibitions and exemptions, see the International Chronicle of Agriculture in the January number of this *Bulletin*. — (6) *J. O.*, 6 and 7 January 1938. — (7) *J. O.*, 9 January 1938. — (8) *J. O.*, 1 April 1938.

The fact that the figures for the more recent months are higher than those of a year earlier is to be accounted for mainly by higher food prices, for the index for industrial prices rose less than $1\frac{1}{2}$ a point over the year while that for agricultural prices rose 5 points. During the three months December 1937 to February 1938 the index of industrial prices fell 2.3 points while that of food prices fell 1 point.

The Ministry of Agriculture's Index Number of the Prices of Agricultural Produce (corresponding months 1911-13 = 100), which stood in January 4 points above the figure for January 1937, fell back in February to near last year's level; the figures for December 1937 and January and February 1938, with the figures for the previous year in brackets, were 132 (126); 134 (130); 130 (129). The decline in the General Index Number of the Ministry of Agriculture in February is associated with declines in the Index Numbers of the Prices of Individual Products, with the exception of those or milk and fat cattle which remained steady.

During the past year, the greatest increase shown in the Ministry of Agriculture's Index for Individual Products relates to barley prices. The figures show a steady rise from 125 in January 1937 to 165 in January 1938; the February 1938 figure was however 156. Fat cattle prices have been good recently, the rise in market prices tending to constitute an increase in the returns on fat cattle greater than that represented by the cattle subsidy. Milk and butter prices have been steady at a level higher than that ruling in the previous year. Pool prices for milk, that is the prices paid to producers, have been about $1\frac{1}{4}d.$ per gallon higher than a year ago. This increase has been due in part to higher realisation prices on the milk which the Milk Marketing Board sold for manufacturing purposes, and also to the fact that a greater proportion of the total output of milk was sold in the more profitable liquid consumption market: "Liquid" sales in England and Wales remain above the 50,000,000 gallon per normal month mark reached for the first time in the summer of 1937.

Wheat prices have been falling during the quarter and the Ministry of Agriculture's Index for wheat was appreciably lower than a year ago. The February average price of English wheat at 8.06s. per cwt. was about 1s. per cwt. lower than in February 1937. Potato prices also remain considerably lower than in previous years; the index for February 1938 was 140 whereas in the same month of 1936 and 1937 it had stood at over 200.

The costs to farmers of feeding stuffs and fertilizers have been rather higher in the first two months of this year than they were a year ago. The Ministry of Agriculture's General Index of the Prices of Fertilizers stood at 94 in January and February 1938, to be compared with 91 in the same months of 1937 and 88 in 1936: the figure or the whole year 1937 was 92. The Ministry's General Index of the Prices of Feeding Stuffs stood at 127 in January 1938 and 124 in February: these figures are to be compared with 119 and 115 a year ago and with a figure for the whole year 1937 of 120. Wage rates also tend to be higher: an index of Minimum Agricultural Wages in England and Wales, showing the percentage increase over 1914, which gives figures of 79; 79; 80 for the last three months of 1936, stood at 86; 86; 87 in the last three months of 1937.

The main movement that appears from the figures for the volume of agricultural imports is a decline in the imports of wheat and maize during the first six months of the present cereal year, that is during the period September 1937 to February 1938, as compared with the previous year: wheat imports are 233,000 tons lower and maize imports 275,000 tons lower. Oats imports also show a tendency to decline. The Board of Trade figures for the value of imports during 1937 show however an increase

over 1936 in the value of grain imports of £22 million (approximately), the value in 1937 being £91 million (approximately); the increase in the value of imports grouped under the heading Food, Drink, and Tobacco, was about £50 million. The volume of potato imports is also very much lower than in preceding years. Otherwise no large change appears. The figures for meat imports are given later in this Chronicle.

There have been no important measures or changes in the operation of marketing schemes or in the administration of government agricultural assistance during the last three months. But towards the end of March the Government published its proposals in respect of pigs and bacon, to which reference is made later in this Chronicle.

I. — MEASURES AFFECTING MARKETS AND PRICES

Regulation of Imports.

Beef and Veal. — Imports of beef and veal, which are subject to the customs duties imposed by the Beef and Veal Customs Duties Act, 1937, are regulated by the International Beef Conference and the Empire Beef Council, both set up in 1937. The Conference arranges for the regulation of the supply of beef to the United Kingdom market from overseas, its main object being to ensure in the interests of producers and consumers alike, an orderly adjustment of supply to demand, having due regard, among other things, to the seasonality of supplies of beef from home sources and the potentialities of production of the several producing countries. The Conference makes recommendations with regard (a) to the total quantities of beef, and of the various classes of beef, to be exported from time to time to the United Kingdom, and (b) to the proportion of these totals to be exported from each country (subject to certain provisions).

Recommendations reached unanimously by the Conference are communicated by overseas representatives to their Governments or other competent authorities, with a view to shipments being regulated accordingly. The function of the Empire Beef Council is to consider matters affecting the well-being of the Empire beef trade, including the Empire aspect of any questions that come up for consideration by the International Beef Conference.

The Conference at a meeting held in March fixed the final figures for the imports of chilled and frozen beef during the second quarter of 1938. These figures, compared with those for previous quarters, are as follows:

Chilled Beef Quotas.

(Thousands of cwts.)

	1937		1938	
	3rd quarter	4th quarter	1st quarter	2nd quarter
Australia	151.2	134.5	57.8	213.0
New Zealand	88.0	46.0	106.0	132.0
Other British countries	35.0	27.5	22.0	39.0
Argentina	1,645.7	1,766.8	1,798.5	1,738.8
Brazil	131.5	—	121.3	256.4
Uruguay	163.8	99.9	143.5	154.8
Total	2,215.2	2,074.7	2,249.1	2,534.0

Frozen Beef Quotas.

(Thousands of cwts.)

	1937		1938	
	3rd quarter	4th quarter	1st quarter	2nd quarter
Australia	(a) 737.0	(a) 474.0	295.4	377.6
New Zealand	172.0	192.0	90.0	180.0
Other British countries	(a) 37.2	(a) 46.3	39.0	30.4
Argentina	16.4	50.4	57.4	22.7
Brazil	23.7	0.8	3.5	2.9
Uruguay	15.8	22.0	14.4	14.4
Total	1,002.1	785.5	499.7	628.0

(a) Actual imports.

The figures for Australia include frozen veal. Of the other countries New Zealand is the only important supplier of veal to the United Kingdom market and the import quotas for supplies from this country were 22,000 and 62,000 cwt. in the last two quarters of 1937 respectively and are to be 42,000 and 30,000 in the first two quarters of this year.

Bacon and Hams. — Following the recommendations of the Market Supply Committee the import quotas, provided for by the Bacon (Import Regulation) Order, 1934, have been fixed for the first four months of 1938 at the same rate as that fixed for the last quarter of 1937. The total allocation is of 1,754,763 cwt. of which 1,087,954 is to Denmark.

Wheat Subsidy.

The quota payments payable by millers or importers under the terms of the Wheat Act, 1932, from which the Wheat Fund is constituted, have been increased in the period under review firstly by the Wheat (Quota Payments) No. 1 Order, 1938, which provided that the quota payment which every miller and every importer of flour should be liable to make to the Wheat Commission in respect of deliveries of flour during the period commencing 23 January 1938 should be 4.8*d.* per cwt. (equivalent to 1*s.* 0*d.* per sack of 280 lbs), and later by the Wheat (Quota Payment) No. 2 Order, 1938, which provides that in the period beginning 13 March 1938 the payments shall be at the rate of 7.2*d.* per cwt. (1*s.* 6*d.* per sack). Rates previously in force were: 27 January-17 April 1937 2.4*d.* per cwt; 18 April-18 September 1937 nil; 19 September 1937-22 January 1938 2.4*d.* per cwt.

At the same time a Wheat (Anticipated Supply) No. 1 Order, 1938, reduced the amount which the Minister of Agriculture anticipates will be sold by registered growers (and therefore the amount on which deficiency payments can be claimed) during the period ending 31 July 1938, from 26 to 25 million cwt.

In considering these two orders, the first of which involves an increase in the resources of the Wheat Fund, and the second of which reduces the maximum possible liability of the Fund for deficiency payments, it is useful to bear in mind that the price of wheat has shown in recent months a tendency to fall back slightly, and that the sales of home-grown millable wheat on which deficiency payments may be claimed tends to be greater this year than last year, when the anticipated supply was not reached by actual sales of home-grown wheat.

Certificates lodged with the Wheat Commission by registered growers during the period 1 August 1937 to 4 February 1938 cover sales of 14,474,396 cwt. of millable wheat; this is to be compared with 13,710,534 $1\frac{1}{2}$ cwt. in the corresponding period (to 5 February) last year.

At the end of February the Wheat Commission decided to make an advance payment on account of deficiency payments that will become due for the cereal year ending 31 July 1938; this advance payment is in respect of valid certificates delivered to the Commission on or before 27 January 1938 and is at the rate of 8*d.* per cwt (3*s.* per quarter of 504 lb.). For the wheat year 1936-37 the total deficiency payment was at the rate of approximately 5*s.* 1*d.* per quarter. The advance payment involves rather more than 13,787,000 cwt. and a sum of £459,500 (approximately).

Marketing Schemes.

THE MILK MARKETING SCHEME (ENGLAND AND WALES).

On 13 January the Milk Marketing Board issued a prescriptive resolution giving effect to an agreement between the Board and the Central Milk Distributive Committee to the effect that the price for milk sold for cheese-making in January, February and March of this year shall be increased by a penny a gallon over the contract formula price. The increase applies to manufactured cheese other than soft curd cream cheese, Stilton cheese, and blue vein cheese; the price for exported condensed milk is also affected.

THE SCOTTISH MILK MARKETING SCHEME.

The terms offered by the Scottish Milk Marketing Board for farm-cheesemaking in the coming season have also been improved. For 1938 the allowance for manufacture will be 1 $\frac{3}{8}$ *d.* per lb. in May against 1 $\frac{1}{4}$ *d.* last May; 1 $\frac{1}{4}$ *d.* in June and July, against 1*d.*, and in each subsequent month 1 $\frac{1}{6}$ *d.* per lb., against 1*d.*

THE PIGS AND BACON MARKETING SCHEMES.

The Bacon Marketing Board have determined curer's sales quotas for the period 1 January to 30 June 1938, and the total quantity of bacon from pigs produced in Great Britain which may be sold by registered curers during this period, is 1,407,338 cwt. This determination is on the same basis as that prescribed for the twelve months ending 31 December 1937.

Towards the end of March the Minister of Agriculture announced the Government's new pig policy. This involves the reconstitution of the Bacon Development Board, which is intended to bring about effective rationalisation of the bacon industry;

the re-establishment of the contract system, which broke down at the beginning of 1937; the establishment of a guaranteed average basic price to pig producers, involving Exchequer contributions which the Minister estimated might amount to £1,000,000 a year.

Sugar-beet Regulations.

Under the terms of the Sugar Industry (Reorganisation) Act, 1936 contracts for the purchase of sugar-beet have to be arranged between the Sugar Beet Corporation and the representatives of the sugar-beet growers. This year agreement was not reached and the matter was referred to the Sugar Commission which fixed the price for beet of the 1938 crop as follows: for delivery to the factories at Bury St Edmunds, Cantley, Ely, Ipswich, King's Lynn, Peterborough, Spalding, Wislington, 43s. per ton; factories at Bardney, Colwick, Felstead, Kelham, 43s. 9d. per ton; factories at Allscott, Brigg, Kidderminster, Poppleton, Selby, 44s. 6d. per ton. These prices are higher than those for last year which ranged from 36s. per ton to 37s. 6d. The contract price for delivery to the Scottish factory at Cupar was subject to separate negotiations and was fixed by the Commission at 41s. per ton; the 1936 price was 34s. per ton. The other conditions of the contract for the English factories remained as they were for the 1937 crop; in the Cupar contract there was a modification of the pulp clause, the preferential prices remaining the same as in the English contracts, but the growers are now entitled to pulp up to a maximum of 1 1/2 cwt. per ton of beet consigned to the factory, and have the option of purchasing a further 1 ton per contracted acre at prices 1s. above the preferential rates.

From 1 September 1937 there is in force a scheme approved by the Sugar Refining Agreement (Assessment of Contributions) Scheme (Approval) Order, 1937 which provides for the assessment of contributions to be paid under the Sugar Refining Agreement dated 22 February 1937, to the British Sugar Corporation, Ltd., by other registered refiners, and for the payment of these contributions to the Corporation.

The Sugar Commission is required by the 1936 Act to determine for each year a maximum acreage in respect of which contracts may be entered into by the British Sugar Corporation Ltd. The object of this is to ensure that the quantity of sugar produced by the Corporation shall be as nearly as possible 560,000 tons. For contracts for the 1938 crop the acreage has been fixed at 405,000 acres.

The total quantity of sugar manufactured in Great Britain from home-grown beet during the 1937-38 campaign was 7,818,573 cwt., made up of 3,044,051 cwt. white sugar and 4,774,522 cwt. raw sugar: in 1936-37 the production was 10,747,386 cwt., made up of 5,375,716 cwt. white sugar and 5,371,670 cwt. raw sugar.

The 1937 crop of sugar-beet was poor, due to adverse farming conditions; the average yield per acre, 8.2 tons, and the average amount of sugar produced per acre, were the lowest since 1931. In view of this the Minister of Agriculture, after consultation with the Sugar Commission, has made a supplementary payment of £141,239; this payment is the maximum amount permissible under the Sugar Industry (Reorganisation) Act, 1936 and is being distributed by the British Sugar Corporation among growers at the rate of 6 1/2d. in the pound on the value of the beets delivered under the 1937 contract.

Further it was announced in February 1938 that an additional 1s. per ton would be paid on all beet delivered to the Spalding factory from the 1937 crop: this crop in the area from which this factory draws its supplies was the worst on record.

II. — MEASURES AFFECTING AGRICULTURAL ECONOMY IN GENERAL

Land Fertility Scheme.

Applications for grants under this scheme in the first five months of its operation covered over 600,000 tons of lime and 330,000 tons of basic slag and involved a government contribution of £566,000 approximately. The stimulus that the scheme has given to land fertilisation is indicated by the fact that the use of basic slag in this period was some 90,000 tons greater than the total quantity consumed in the whole fertiliser year ending May 1937. The estimated quantity of basic slag that will be available for deliveries under the Scheme in the current fertilizer year, ending on 31 May 1938, is 478,000 tons, i. e., double the deliveries in the previous years. The Land Fertility Committee has authority to make during the year contributions up to £1,000,000; and it appears probable that all this sum will be required.

MONTHLY BULLETIN

OF

AGRICULTURAL ECONOMICS AND SOCIOLOGY

1938

No. 5

THE CALCULATION OF PRODUCTION COSTS OF AGRICULTURAL COMMODITIES

SUMMARY: *Introductory Note.* Importance of production costs in rural economy. Analytical farm accountancy the essential basis of the establishment of production costs. *The method of Dr. Laur.* Production costs of certain agricultural commodities in Denmark, Latvia and Estonia. *The method of calculating production costs in the United States.* Production costs of a certain number of products in the State of Michigan. *The method adopted by the Agricultural Economics Research Institute at Oxford.* Production costs of milk in England and in Wales. *The method adopted by the Central Office of Farm Accountancy and Rural Economy in Paris.* Production costs of sugar-beet in the Paris Basin. *Method of uniform reduction. Conclusions.*

Introductory Note.

The calculation of production costs is one of the fundamental problems of rural economy. It is proposed to examine here the methods of calculating production costs as employed in a certain number of countries and the results obtained.

Analytical accountancy, or book-keeping by double entry, makes possible the precise calculation of production costs and transformation values of agricultural products. It artificially splits up the unit of the farm and affords the possibility of ascertaining not only the gross return and the production costs of the whole of the farming enterprise, which is obtainable by synthetic accountancy or book-keeping by single entry, but also the gross return and the production cost of each of the branches of production. It implies: (1) the strict control or check of the exchange of materials made between the branches of the farming business; (2) the estimation of each such contribution made; (3) the entry of the values obtained on the debit and credit side of the accounts opened for each branch of farming. In other terms the book-keeping by single entry deals only with the external transactions of the farm, while book-keeping by double entry is concerned also with the transactions within the farm itself and describes these systematically.

Whether this scientific method of accountancy is justified was questioned by Howard; Aereboe, Stieger, Niccoli. In fact, Aereboe goes so far as to deny the utility of analytical accountancy. According to this writer it is not the

position of each of the branches of production which must be made clear, but that of the whole organisation of the farming enterprise. Laur replies and says that this question does not even arise. His argument attacks all sides of the problem. The question under discussion, he says, is not the principle of the estimation of the value of products exchanged within the farm, but the method of proceeding to this estimation. Is the keeping of the Ledger, so useful in regard to the information it supplies, to be given up? Are we to give up all attempts at the solution of the problem of the cost of production which can alone be solved completely by analytic accountancy? How are we to go to work to establish the costs of production of products not intended for the market? It is recognised that book-keeping by single entry is the more powerless to give information on the cost of a product of the farm the less that cost enters into the formation of the final gross return. To refuse to admit the need for estimating the value of products which do not reach the market, would be to renounce any comparison between the results given by the annual balance of accounts, on the one hand, and those given by the calculations based, as is analytical accountancy, on the valuations just mentioned, on the other hand. It is obvious that opinions must differ as to the question of the form of these calculations and of their extent. This supplies the reason for resolving the question in favour of analytical accountancy, which is not bound to any special method of investigation, but makes use of any of the methods according to the particular case, basing them more securely.

Even if the principal problems of the organisation and management of the farm can be resolved without recourse to analytical accountancy, it is not the less true that this method makes the task of the operator easier, offers less difficulties than the calculations which it is claimed may replace it, affords a more adequate and more complete solution of the problems relating to the formation and structure of production costs. As an instrument of scientific investigation book-keeping by double entry is to the rural economy what analysis is to chemistry. It requires much time, it is argued. But the calculations which are to replace it take as much time, if not more. The calculations are not ruled out, quite the contrary: this form of accountancy implies the closest relation between accounts and calculations. It is said that it splits the farm unit. This is not so, as he who is capable of making use of the method—an expert and careful farmer, capable of carrying through a lengthy process of interpretation, trained in a good school of agriculture—will keep in his mind the whole of the Ledger, so that a subdivision on an exhaustive scale of the accounts will not entail any risk of mistakes, but will enable him to better examine the mutual relations of the different branches of production. What is there to prevent his following this analysis by a synthesis by groups; after having, for example, treated the different crops separately, considering the whole system of crop rotation? When the decision has been made to give up mechanical and formal valuations, concludes Dr. Laur, and to bring to each case that arises a judgment on the value in money of the marketable products and of the contributions in kind, we shall be compelled to give book-keeping by double entry its rightful place.

The Method of Dr. Laur.

What is the correct way of keeping accounts by double entry? It is necessary to have a land register, an inventory, a Journal in which is entered all the farm expenditure, a labour register for entering the labour of men and of teams; a stores or supplies book for checking movement of materials. At the end of the working year, the figures relating to the same branch of production must be brought together to ascertain if there is profit or loss. Every crop and every transaction in livestock must have a separate account. In each one of these accounts, which will vary in number according to the size of the farming enterprise, all the accounting operations relating to the branch in question must be entered. The keeping of the Ledger containing these accounts necessitates a number of calculations. The labour costs have to be divided between the accounts in accordance with the particulars shown in the labour register; the total team expenditure must be divided by the number of work days to obtain the cost per day. All the accounts must bear a share of the labour or team costs in the proportions shown by the respective registers. The other expenses have then to be distributed, although it is not easy to arrive at an exact distribution of the expenditure relating to several accounts. The different enterprises interlock; the products of the farm are a connected whole; the production costs are also closely connected. In farm accountancy, the total of the farming expenses, which may be taken as exact, is equal to the total of the different products; but in accordance with the conventions adopted, necessarily very strict, the level of one or the other of these totals may vary slightly in the proportion limited to the conventional element in the individual production costs. Large sums are spent, for instance, on root crops, often out of proportion to the receipts from the crop; but the wheat which follows has the advantage of the heavy expenditure of the year before and will itself cost relatively little. A convention is thus necessary in estimating the interests of each of these crops. In order to assign a share in the expenditure, reference can be made to the number of work days, to the capital engaged, to units of measure and weight. In many cases however these methods will not be adequate. How, for example, is the production cost of cattle-raising to be divided between the returns in the form of milk, growth of the animals, calves, work of the animals, manure? In these cases, recourse has to be had to the gross return and, taking as departure point the undivided real expenses, these will be distributed proportionally to the different gross returns provisionally estimated.

Another difficulty arises from the fact that before being able to close an account, it is essential to know the results of several other accounts which cannot be closed unless the results of the first are available. The accounts are so closely linked that they cannot be disentangled. The Gordian knot must be cut. The values per unit of certain products are calculated utilising figures obtained the year before or average figures. For the first year judgment is the only basis.

Accounts relating to crops will naturally be closed before those relating to livestock transactions. Costs of labour and of teams must first be known however. And one may be held up in estimating the value of the feeds given

to the work animals before having been able to calculate the production costs of the forage. The difference between this provisional value and the real costs will be established later. In the first place the interests on the debts, depreciation charges, the cost of insurances and the general administration expenses must be calculated.

The books that must be kept before any others are, as indicated above, the Inventory and the Journal.

There are:

- (a) the accounts of the family property used as method of control;
- (b) the household accounts;
- (c) the so-called distribution accounts, subsidiary accounts which, as their name shows, enable one to distribute among the different branches of production the expenses which cannot be directly assigned. Taking a concrete example, suppose the register of purchases of concentrated feeds is opened. The balance cannot be distributed among the different accounts without knowing the purchase price of each of the feeds delivered to the farm. It is well to calculate the average sale price per unit of starch value. The figures obtained may even be compared with the average transformation values per unit of starch value of all the feeds consumed on the farm. Either the units of starch value fed or feed days will be used for assigning the various costs of the stock raising;

- (d) the revenue accounts, subdivided into:

- (i) Production accounts, which are used to calculate the return on the basis of production costs and ought to balance. The balance is not entered in the profit and loss account.

- (ii) Profit and loss accounts which are divided in their turn into accounts of the contributions in kind and in service, market accounts and stores accounts. The balance of each of these accounts constitutes the profit or loss. By way of example the accounts of the draught horses may be taken. The production account is one of those that must be closed first. It will in consequence contain a number of estimated items. On the debit side, must appear the expenses assigned and the percentage composition of these expenses on the credit side, the value of the dung produced. The balance has to be assigned proportionally to the work-days of the horses as between the farm and the market. In the account of the contribution of services to the farm the sum coming from the production account has to be distributed, proportionally to the hours of work, between the different branches of production. If there can be carried to the debit of the branches of production which have utilised the work of the horses the whole of the expenses which are to be assigned to them, the account of contributions made will balance; if not there will remain a balance to be interpreted as a profit or a loss. In the market account, have to be entered, on the debit side the sum coming from the production account, on the credit side the value of the paid work done by the horses for third parties; the difference will show profit or loss.

Next come the recapitulatory accounts which allow the calculation, by the method of single entry, of the final results: the net return, the family capital return, the operator's income, the family labour earnings, etc.

It remains to compile the statistical returns of the farm, which should have as main object the indicating of the results of the revenue or returns accounts. For each crop there is reckoned the areas cultivated, the aggregate production costs and also those per hectare, the quantities of seeds used, the man-work-days and the team-work days, the intensity of the manuring, the yields in kind, expressed in quintals, in starch units and in cash, the relation between the production costs and the gross returns, the net return, the profit or loss on total farm assets and the prices obtained. Coming on then to the livestock transactions accounts, the production costs of each branch will be calculated by fodder-day and by ton of live weight, units of starch value of fodder given to the animals, the yields (milk, meat increase, calves, work, manure) per hectare per fodder day, per ton of live weight, per head and per unit of starch value. The calculations of net return follow, and finally we pass to the prices obtained.

In illustration a certain number of production costs calculated by this method, may be given, referring to Denmark, Estonia and in Latvia in 1934-35 and in 1935-36.

*Costs of Production of the Principal Agricultural Products
in Denmark, Latvia, and Estonia.*

Products	Cost of production		Sale price	
	1934-35	1935-36	1934-35	1935-36
DENMARK.				
Milk, öre per kg.	9.50	11.20	10.35	11.54
Cereals, öre per kg. of grain	12.4	11 —	13.04	12.88
Potatoes, crowns per quintal	4.07	4.33	8.62	8.44
Sugar-beet, crowns per quintal	3.09	1.82	2.18	2.20
Timothy grass and clover, crowns per kg.	1.39	0.99	—	—
LATVIA.				
Milk, centimes per kg.	7.82	8.08	9.60	9.50
Butter, lats per kg.	2.24	2.36	1.52	1.54
Beef, lats per kg.	0.29	0.34	—	—
Pig meat, lats per kg.	0.74	0.67	0.67	0.53
Rye, lats per 100 kg.	9.98	10.63	14.57	12.78
Winter wheat, lats per 100 kg.	12.35	13.49	18.97	15.79
Barley, lats per 100 kg.	8.45	8.93	12.53	11.27
Oats, lats per 100 kg.	5.80	6.12	10.15	9.21
Potatoes, lats per 100 kg.	2.34	2.46	3.54	3.36
Pasture hay, lats per 100 kg.	1.56	1.71	3.86	4.30
ESTONIA.				
Milk, centimes per kg.	7.89	7.78	4.50 ^a	5 —
Butter, in crowns per kg.	2.25	2.07	1.28	1.47
Value of fodder transformed into milk, in crowns per cow	47.73	84.01	—	—
Work of horses per hour, centimes	14.14	14.79	—	—
Rye, crowns per quintal	7.94	10.15	11.40	12.30
Winter wheat, crowns per quintal	9.73	12.17	15.40	16.90
Barley, crowns per quintal	7.57	9.92	11.10	12.10
Oats, crowns per quintal	5.72	7.86	8.30	9.30
Potatoes, crowns per quintal	1.59	1.99	1.80	2.10
Pasture hay, crowns per quintal	1.75	2.11	—	—

The judging of production costs requires the comparison of them with the selling prices. In Denmark, the production costs, with the exception of the costs of production of milk, were lower in 1934-35 than in 1935-36: the selling prices were higher. The cost of production of milk, in 1935-36 advanced slightly as compared with the previous year, as the expenditure for purchases of concentrated feeds was higher. In Latvia, the production costs in 1935-36 show a tendency to approach the level of the selling prices which declined. Production costs of meat are even higher than the price realised; this branch of farming is worked at a loss. In Estonia, the crop products were sold at higher prices in 1935-36, but they also cost more to raise. Milk and butter were produced cheaper, and sold at better prices in 1935-36; however the costs are still too high in relation to the selling prices: these branches of production do not appear to benefit by a favourable turn in general conditions.

The Method of Calculating Production Costs in the United States.

In the United States, the investigation of production costs is one of the essential objectives set before themselves by certain accountancy centres. The method is highly analytic. In addition to registers, card indexes, bulletins and schedules are employed. The inventory is usually established by the farmer, who arranges for the assistance of a valuer. The plan of the farm, in the fullest possible detail, is prepared by the farmer and the valuer together: the latter proceeds to the surveying. For making returns of the work performed, two types of schedules are utilised: the operator uses a schedule on which he enters his own work, that supplied by the workers on a daily wage, by seasonal or job labourers, and by the horses; the farm workers regularly employed establish, with the help of a second schedule, the daily return of the work done by them, with or without horses. These returns, together with the financial statements, supply the data enabling the labour costs to be calculated. It is more difficult to obtain the returns of the feeds given to each class of livestock. At the end of each month the farmer fills a sheet stating the particulars as to the average daily ration for each type of livestock and as to the stock numbers. With the figures supplied by this return, the return of the purchases, sales, crops, and by the inventory, the consumption of stock feeds is ascertained. In the returns of livestock all is entered relating to the fat content of the milk and of the butter, the individual yield of the dairy cows, the production of eggs, the hours or days of work supplied by each horse, in short all data relating to the stock farming. The bulletins contain in addition supplementary notes, on the distribution of the work between the parcels of land and the different forms of activity, on the quantity and the value on the spot of the feeds consumed by each animal, on the crop obtained from each field, on the number of times a machine has been used for a special operation, on all the products of the farm which are consumed in the farm household or delivered to the family of the owner.

The information contained in all these returns is classified and condensed by the accountancy centre. First comes the classification. The inventory is the first to be closed; then the work returns are dealt with, their classification being essential to final success. If this is not exact, the interpretation of the

data will not be correct. The work necessary for the upkeep of the livestock is entered separately either daily or monthly; in the former case, a column is reserved for each class or sub-class of stock, in which all the work involved in their upkeep is entered; in the latter case, the whole of the regular work for all classes of stock is grouped under a single heading and the distribution is done at the end of each month. All work connected with equipment is entered in a double column under a special heading. The same holds good of work relating to the farm estate, to the crops, to the time spent in marketing, on household requirements, in the garden, and for external work. The method used for the keeping of the financial accounts, is similar to that adopted for entering the different kinds of farm work. The daily feed rations given to the stock are transferred on to a separate sheet. Each kind of stock is treated apart. In the case of supplementary notes no special schedule is employed. The particulars as to the quantity and value of the materials utilised for production, harvesting etc. are transcribed on to the field sheets, as they are supplied by the daily returns or the questionnaires.

The condensation of the data at the end of the year requires much skill. It is necessary:

- (a) to arrive at the yearly totals of the hours of work of men and horses;
- (b) to add the monthly totals of work done by each regular worker, by the owner and by the temporary workers, as well as the totals of the work done for neighbours etc. in exchange and of work done without pay; to compare the resulting position with that described in the preceding paragraph;
- (c) to recapitulate all receipts and expenditure and to group these according to their origin;
- (d) to group together the quantities of feed consumed by the different kinds of stock;
- (e) to establish the average number of animals of each class and of each sub-class, so as to enable the calculation of the number of stock units;
- (f) to assemble on a special sheet, supplementary notes on the crops;
- (g) to group, total and distribute the labour expenses;
- (h) to establish the production account showing the letter designating each field, the main crop and the by-products.

The following eight operations are so closely linked that one cannot be accomplished without the others. They are:

- (a) the calculation of the interest charges;
- (b) the return of the quantities and value of the feeds given to stock and of the other products consumed on the farm during the year;
- (c) the distribution of the upkeep of buildings, etc.;
- (d) distribution of transport costs (including lime and manure);
- (e) calculation of the annual cost of the farm machines;
- (f) calculation of annual cost of grazing;
- (g) calculation of labour costs;
- (h) costs of horse labour.

Once these accounts are finally closed, the sums appearing on them are distributed. The first to be closed is the account of transport costs; then

successively the stock feed accounts (not excepting the grazing account); the accounts for expenses of maintenance, of buildings and real estate; the account of equipment expenditure; and the account of unutilised cultivation residues, the total of which will be entered in the register of interest. After this, there are grouped in a distinct account the non-classified expenses, those not directly chargeable to any operation, general management expenses. All these expenses are transferred to the accounts for the separate enterprises (*viz.*, each field, kind of livestock, farm operation etc.).

Next come the receipts. The return from each field and from each kind of live stock is established. Next we pass to the calculation of profits and losses; and from there to the calculation of the expenses, receipts and profit per acre and per unit; of the quantities of seeds, fertiliser, per acre; of the gain per hour of work and per acre.

It remains to make the calculation of the labour cost and to give a rational interpretation to the data. It will be seen that here, as in the system previously studied, we pass from analysis to synthesis and that the importance is not overlooked of considering the farm as a unit.

By way of illustration, the production costs of a certain number of farm products are shown here for the State of Michigan in 1934 and 1935.

	in 1934	in 1935
Milk, production cost per cow in dollars . .	135.84	121.68
Milk, production cost per lb. of fat content, in dollars	0.41	0.36
Production cost of concentrated feeds, per cwt. dollars.	1.41	1.16
Production cost of eggs, in dollars per hundred (1)	18.20	19.20
Production cost of sugar beet, per ton in dollars (2)	3.68	5.85
Production cost of feed per lamb in dollars (3)	1.69	3.25
Production cost of onions, per cwt. in dol- lars (4)	0.52	0.99

(1) Result of 76 farms. — (2) Results of 95 farms. — (3) Results of 40 farms. — (4) Results of 40 farms.

The Method adopted by the Agricultural Economics Research Institute at Oxford.

In programme and methods of working, the Oxford Agricultural Economics Research Institute, established in 1913, has a market resemblance to the group of American offices which undertake investigation of production costs. A study is made of a certain number of typical farms, and information is obtained from the farmers on the following points: (a) labour of men and animals employed during the year; (b) daily consumption of stock feeds, classed by quality and by kind of stock; (c) cash transactions in detail; (d) amount

of receipts and expenditure. The value of the farm products consumed by the household is reckoned on the side of receipts, just as if they had been actually sold. To these returns there should be added the inventories of the beginning and end of the year.

The Agricultural Economics Research Institute at Oxford published in 1937 a study on the costs of milk production in England and Wales, during the year 1934-35. Information was obtained from 631 farms feeding in all 20,545 cows. The total quantity of milk produced in the year under review was over 12,000,000 gallons. In 91 per cent. of these farms milk production was the chief cash enterprise, on the other farms milk was second in importance as a source of income. From the farmers participating in the scheme were secured records of: (a) all transfers of stock into or out of the herd, (b) all purchased or home-grown feeds consumed by the herd; (c) all labour, whether hired or family, employed in milk production; (d) all incidental expenses connected with the production of milk, and (e) the yield of milk and method of disposal.

The farms were grouped according to type as follows:

(1) Wholesale	490
(2) Wholesale (intermediate)	51
(3) Graded or certified producers	18
(4) Producer-retailer	72
Total	631

The enquiry relates to the relative importance of dairying in the farm economy, the size of the herds and the density of stocking, the milk yields, the disposal of the milk, the capital invested in cows, other dairy stock and dairy equipment.

The following were the results obtained in 1934-35:

	Farms of			
	Group 1	Group 2	Group 3	Group 4
Number of cows per herd	33.27	25.38	44.06	29.97
Milk yield per cow and per day in gallons	1.76	1.73	1.71	1.85
Net farm cost in pence per gallon	9.41	10.47	12.82	11.45

The Method adopted by the Central Office of Farm Accountancy and Rural Economy in Paris.

A method calling for special notice on account of its high degree of precision may now be described. This is the method of Rimaillho, a method applied by the *Société agricole de comptabilité et de révision* of which M. Rouilly is Director and which has headquarters at Paris.

The book-keeping by the farmer is reduced to a minimum; the particulars assembled are sent to the office of the *Société*. There extracts are made from the information supplied, the necessary entries are made, and at the end of the year a complete accountancy result is presented on the production costs of the different enterprises.

To each enterprise there corresponds a letter with a coefficient attached; to each piece of land, a figure. These figures and letters correspond in their turn to an account. Each implement has also its symbol. For registering the items "work, material, cash" the farmer uses a daily sheet on which he enters: on the one side, the work of the day, and on the other, the incomings and outgoings of the materials; a sheet prepared at the end of the month on which the wages paid and the costs of animal and machine traction are shown; and a receipts and expenditure sheet on which he enters all cash transactions.

Each month, the farmer sends to the Office the day sheets, the pay sheet and the statements of receipts and expenditure. The work of the Office consists in giving a value to the work-days and to the quantities of material utilised, then in distributing the outlay of work, of material and of cash between the different accounts opened in the course of the year. These two operations are carried out simultaneously. All the work-days being classified in each account, the number of work-days of the different categories of workers and of draught animals during the month is totalised and the cost of the work-day is calculated. Each work is assigned the value corresponding to the unitary cost of the work day of the worker or draught animals, then a value is given to the quantities of material utilised during the month which are then grouped by account; next the expenses of the month in labour, materials or in cash are transferred to the Ledger. At the end of the year, for each is added the total of the expenses in subsidiary work, materials, cash: the total of the subsidiary accounts is distributed over the production accounts, following certain rules (1) and the production costs are calculated.

	For 7.5 ha.	per ha.	in per cent.
Work and equipment	14,273.12 fr.	1,903.18 fr.	42.92
Materials	11,887.50 »	1,585 — fr.	35.74
Fixed expenses	7,096.92 »	946.25 fr.	21.34
Totals	33,257.54 fr.	4,434.43 fr.	100 —
Deduction for tops.	1,125 — »	150 — fr.	—
	32,132.54 fr.	4,284.43 fr.	—

(1) For example, the general expenses are distributed in proportion to the costs of labour and of the work of draught animals; this leads to a logical result, a piece of land which has received much attention takes a larger proportional share in the general expenses.

The following statement gives the production costs in 1934-35 of a plot of 7.5 ha. of sugar-beet standing first in rotation, based on the accounting of 20 farms of 196.06 ha. in the Paris regions.

If a yield of 37 tons to the hectare be reckoned, the cost of producing a ton of sugar-beet comes out at 115.80 fr. If sold at that price, the grower would have recovered his outlay in 1934-35. If sold at 121.60 fr., or with an increase of 5 per cent., the capital invested by the grower in the growing of sugar-beet would have realised the interest which he would have obtained by investing it in Government securities.

The Method of Uniform Reduction.

Another method of calculation of production costs may receive a brief mention here, the *method of uniform reduction* used by the Accountancy Office of Soissons. It is in general use in a number of countries. By the use of this method, it is possible to calculate production costs without the necessity of keeping accounts by double entry.

A beginning is made by taking the difference between the gross return and the aggregate costs of production (farming expenses plus interest on capital), that is to say, the profit or loss on total farm assets, or of the actual profit which is expressed as a percentage of the gross return. The figure obtained is used as a partial check of the price which the farmer has received for the products sold. The production cost of the different products is equal to the sale prices realised multiplied by this coefficient. The costs are distributed uniformly over the components of the gross return.

The advantage of this system is found every time it is desired to make an enquiry dealing with a considerable number of farms, since in this case the figures obtained balance and there is no place for subjective estimates, which are the weak point of analytical book-keeping.

Accountancy results were analysed by the Soissons Office for 110 farms in 1934-35; the average area was 290 hectares. As in the case of the 20 farms reviewed by the *Société agricole de comptabilité et de révision* under the direction of M. Rouilly, these 110 farms are situated in one of the most populous regions of France nearest the large urban and industrial centres. Their cultivation is necessarily of the intensive type: 38.20 per cent. of the area is under cereals, 23.80 per cent. under sugar-beet, 13.20 per cent. under industrial crops. The production cost in 1934-55 of the ton of sugar-beet, calculated by the method of uniform reduction, was established at 113.60 fr., and that of wheat at 81.35 fr. per quintal. The yields have been as follows: sugar beet 37 tons and wheat 34 quintals per hectare. There is a striking agreement in results: analytical book-keeping gave for sugar beet a production cost of 115.80 fr. per ton; synthetic book-keeping, 113.60 fr.

In Denmark, the production cost of milk in 1934-35 amounted, by the analytical book-keeping, to 0.095 crowns per litre; by the method of uniform reduction, it is about 0.087 crowns per litre.

The method of uniform reduction thus gives results as satisfactory as the analytical book-keeping on farms directed exclusively to two or three enterprises; it is less indicated in the case of more complex farms, as it does not give full value to the more productive branches where the margin between returns and costs is larger. In this latter case, it is advisable to neglect the enterprises of less importance, as they do not exercise influence on the final result.

Conclusion.

Book-keeping by single entry is especially suitable for small or medium sized farms; that by double entry for large scale cultivation. The method of investigation of production costs described at the beginning of this article—that originated by Dr. Laur—is undoubtedly the most strict. It would appear, however that the method tending to general acceptance, as demanding of the grower less technical knowledge and less time, is that which consists in the handling and analysis by an Accountancy Office of the records supplied by the farmers. This method has been seen to be adopted in the United States, in England and in France, and is characterised by a high degree of precision and objectivity.

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STUDIES IN THE DEVELOPMENT OF INTERNATIONAL TRADE IN AGRICULTURAL PRODUCTS

The Recent Evolution of the Agricultural Exports of the United States.

SUMMARY: Introduction. — American agricultural exports from 1925 to 1929. — The period 1930-33. — The period of Agricultural Adjustment. — The American agricultural export situation since 1935. — Summary and Conclusion.

Introduction.

Since the autumn of the year 1929 the world economic system may be said to have passed through three main phases. The first was a downward phase, in which there was an enormous shrinkage of production, trade and employment; in which a continuous decline of prices and values caused the impoverishment of large masses all over the world, and in which all the traditional instruments of economic stabilisation, such as the gold standard, and the (relatively) free market showed their inability to fulfil their purpose against such terrific strains, and in consequence were discarded. This phase, lasting until roughly the latter part of 1932 and the beginning of 1933, was followed by a period in which, though further collapse seemed to have been staved off, and some slight, piecemeal and sporadic improvement became noticeable, economic activity remained at a generally low level whilst in all parts of the world new mechanisms of control were devised to replace those which had been more or less compulsorily abandoned. The third phase, though it began at different times in different countries, may be said to have become evident throughout the world by the middle of 1935. During this phase, economic activity in general began to approach, and in some fields, to pass, the levels it had reached before 1929. In spite of some disquieting signs, this phase has lasted until the present.

It would seem therefore that the past decade has described a more or less complete cycle of the type which has been common since the early part of the nineteenth century when, through the improvements in technique and the growth of population, the world became a closely-related interdependent organism subject to periodic crises of a universal character. Nevertheless there are important differences between these earlier fluctuations in the economic system and that which is not yet concluded. In the earlier period the large upward and downward movements introduced, it is true, an element of discontinuity in economic development, but the main principles of that development were much the same as if it had taken place smoothly and without discontinuity. Those changes of a permanent and "natural" character which first took form during the depression or boom generally reflected forces of a permanent character, such as improvements in technique which made it possible to bring new lands into the orbit of the world market. Except for changes of this kind the world economic structure was not radically altered by the experiences during the fluctuation, however wide this had been. In those days it was not difficult to draw the line between the "natural" and "permanent" forces and those

of an "artificial" or "short-run" character. The changes in markets and sources of supply could generally be easily explained, and, because of the more or less free play of economic forces, shown to correspond to natural and economic differences between countries and the march of general economic progress. To-day, however, it is a much more difficult problem to determine how far the many important changes which have occurred in the world economic structure correspond to changes in the basic conditions of the economic structure. The intense legislative activity in the economic sphere which resulted from the widely held belief that the world economy had lost its powers of automatic adjustment and recovery has done much to blur the distinction between the "natural" and the "artificial" in economic affairs. Nevertheless it is of extreme importance, both for the conduct of further State intervention and for the economic well-being of the world, that this distinction be preserved. To-day it is more necessary than ever, not only to know the changes which have occurred in the last ten years, but also to distinguish which of them represent structural changes of a permanent character and which of them depend on the maintenance in the whole or part of that vast system of Governmental intervention which has been elaborated in the past years of stress.

Recent economic history therefore has as topical an interest today as any of the events of the moment. The economic possibilities of the near future are to a large degree already expressed in the changes in the recent past. For almost half a century the United States of America has been one of the leading exporting countries of a number of the staple agricultural products. During the last ten years, however, very important changes have occurred. The total of American agricultural exports sank, by the middle of this period, to about a quarter of their value in the years preceding 1929. For two years, the United States, which had been one of the four leading wheat exporting countries in the world, became a net wheat importer. At one point, its cotton exports accounted for less than half of the world total, a situation perhaps not reached since the American Civil War. On the other hand, apart from such radical changes in the export of individual commodities, the United States, owing to its close connection with the rest of the world and to its leading position as a producer, reflected in one way or the other almost all the changes which were so fundamentally altering the picture of the world economy. No one cause accounted for any of the major changes in the American agricultural export situation. They reflected world over-production, currency collapse, national policies, harvest conditions and the numerous other disharmonies of the period. By reason indeed of this susceptibility to all the influences at work the study of the American situation, even in the restricted field of agricultural exports, can reveal almost as much about the nature of the world crisis as a study of the world economy as a whole; and furthermore, it is more easy to make. In the following, therefore, it is sought to present a picture, on as simple lines as possible, of the development of American agricultural exports in relation both to American agricultural production and to world trade, and to bring out the nature of the causes, national and international, which have contributed to the course they have taken.

American Agricultural Exports from 1925 to 1929.

Though the period of five years from 1925 to 1929 must not be regarded as one of complete economic normality, it had certain general features which make it a convenient standard of reference in judging subsequent events. It was the first period in post-war years in which a relative stability in currency and economic affairs in general was achieved; it was a period in which the disproportion between European and overseas agriculture created by the war tended to disappear as result of the partial recovery of European agriculture; it was one in which markets—and agricultural markets in particular—were still relatively free, for the restrictions imposed during the war had been to a great part removed, whilst those which replaced them were relatively few, and not extreme in character. Lastly it was a period of great economic prosperity. Under the surface, it is true, the forces were already at work that were to bring about the ultimate collapse; nevertheless that collapse is best measured by a comparison with that period.

In the United States, agricultural production as a whole was at a higher level than at any previous period since the war, and in fact the index of the volume of agricultural production rose almost continuously from a low level of 83 (1924-29 = 100) in 1921 to 104 in 1928. In spite of slightly falling prices, particularly of the cereals, gross income from farm production was practically stable at between 11.5 and 12 milliards of dollars. The great bulk of this production was naturally taken by the enormous domestic market of the United States. But a very substantial proportion constituted the surplus for export which was in effect the safety-valve of the American economy as then constituted. In the five years agricultural exports fluctuated between 2.3 and 1.8 milliards of dollars, that is, at times nearly one fifth and never less than one seventh of the value of production. These figures, however, striking though they are, do not give a full idea of the importance of the export trade to American agriculture. For the American agricultural export trade consisted largely of a small number of commodities, whilst numerous commodities of great importance to American agriculture were not of similar importance in the total agricultural export trade. The constitution of American agricultural exports, and their close dependence on a few commodities may be seen from the following figures of agricultural exports in 1928-1929.

	Millions of dollars
Total agricultural exports	1,847
Raw cotton	868
Fruits and preparations	149
Raw tobacco	148
Grains and flours	322
Feeds and fodders	34
Pork and lard	161
Total groups specified	<u>1,682</u>

Thus these six groups represented over 85 per cent. of total exports, though they contributed less than two thirds of the total gross income from farm production. In other words the export value of these principal agricultural exports represented a far higher proportion of domestic production than the export value of agricultural production in general. In fact, in 1928 the gross income from farm production of cotton amounted to 1,470 million dollars, so that the 1928-1929 exports represented practically 60 per cent. Again, in the same year the value of grain production, as measured by the figures for gross farm revenue, equalled 1,513 million dollars whilst the value of grain exports represented over one fifth of this sum. A similar comparison shows too that the value of tobacco exports represented more than half (54 per cent.) of the gross production value, whilst the value of fruit exported represented 21 per cent. of production value (1). In quantity terms over the whole period 1925-29, 57.5 per cent. of the cotton crop, 33.3 per cent. of the tobacco crop and 18.9 per cent. of the wheat crop was exported.

The above table indicates also another fundamentally important feature of the American agricultural export trade, namely its dependence on a limited number of commodities with very distinct and independent world markets. Cotton alone represented 47 per cent. of the total agricultural exports, whilst grains and flours represented about one third of the remainder. It must therefore always be born in mind that the general situation of American agricultural exports reflects general world economic conditions chiefly as far as those conditions influence the world cotton and grain markets.

If the small group of commodities constituting the bulk of American agricultural exports were of great importance to America, so too were they of great importance on the world market, for the quantities of American cotton, wheat, tobacco and pig products exported all represented substantial proportions of the total world exports of these commodities. Thus, according to statistics published by the International Institute of Agriculture, world net exports of wheat and flour averaged 21 million metric tons in 1925-29, whilst American net exports averaged 4.2 million; world net exports of tobacco averaged 5.4 million quintals of which 2 million were from the United States; world net exports of cotton averaged 3.1 million metric tons, of which 1.9 million, from the United States and, lastly, world net exports of pig-meat (2) averaged 6.6 million quintals, of which 3.4, again over half, from the United States.

During this period farm prices in general were maintained at fairly high levels, though, compared with before the war their relation to industrial prices

(1) It must be noted that the "export value" includes items - such as certain charges of transport, packing etc. - which are not included in the "gross income from farm production". The relation between these two values is not therefore an accurate measure of the proportion of the farmer's gross income due to exports. It simply compares the values created by agricultural export with the gross farm revenue.

(2) Calculated from "International Trade in Meat". International Institute of Agriculture, 1936, Table A-IV, pp. 366 and 372.

was unfavourable. The significant weakness in the price of wheat since 1925 reflected the growing recovery of European agriculture, though even after the world bumper wheat crop of 1928, which caused an appreciable fall, the price level of wheat was maintained at well above the pre-war level. It was only after 1929 that the break in prices was so severe that the picture of American agricultural exports assumed a very different outline from that described above. It is to this change and to the manner in which it occurred, that we may now direct our attention.

The Period 1930-1933.

The three years 1930, 1931 and 1932 was a period in which American agriculture, and particularly those branches which were dependent for their equilibrium on overseas exports, suffered a series of hard blows of increasing strength—blows which, coming largely from overseas, reinforced the view, always strongly held in the United States, that salvation for agriculture was not to be found in overseas markets.

In 1933, when this view became effective in Governmental policy, America was seen to adopt a series of agricultural policies which were to make the evolution of American agriculture independent of world conditions.

It is not necessary to do more than summarise these "blows from overseas", for they are still relatively fresh in the memory. In so far as they affected American agriculture they consisted in an enormous collapse of prices—of foodstuffs, and agricultural raw materials—; in the elaboration of tariffs and quotas on foodstuffs in all the principal European importing countries; in the freezing of loans abroad, and the consequent stopping of American lending, by which in the previous period large quantities of American exports had been financed; in the abandonment of the gold standard on the part of the United Kingdom, the largest market of the United States, and all those countries, many of them important rivals of the United States as agricultural exporters, which joined the so-called "sterling bloc", and finally in the division of the world into almost exclusive groups of countries linked by important tariff preferences from which the United States was excluded. Each of these last two groups of events resulted in a further price fall in the countries such as the United States, whose currencies were still based on gold, or which did not belong to an imperial group.

The main instrument of agricultural policy used during this period to soften the effects of such a drastic series of blows had already been created in 1929 as a result of the worsening of agricultural prices in relation to industrial prices in preceding years. The aim of the Federal Farm Board was to bring about the maximum stability of agricultural prices possible. The methods it adopted were such as the granting of loans to enable farmers to hold a portion of their crop off the market until prices should improve; assistance to agricultural co-operative societies with a view to securing to the farmer the benefits of collective marketing; and thirdly, the outright purchase of crops—particularly wheat. It is not relevant here to engage upon a criticism of these methods. It

need merely be pointed out that they were essentially adapted to a situation of the type of the preceding years, when prices would fluctuate and even tend slowly downwards; they were not adapted to a period of enormous decline of prices such as actually occurred during the years in which the Federal Farm Board operated. The attempt to stabilise prices on a falling world market by means of crop purchase and storage naturally led both to heavy losses and further pressure on prices as a result of accumulated stocks. It must further be recalled that the Federal Farm Board was not empowered to control production. In fact, its activities contributed to preventing the adjustment of American agricultural production to the declining world market, by giving farmers the hope that prices would not fall too seriously. It was only the hard experience of the years 1930-32 that finally made it clear that so long as a large part of American agriculture was dependent on world market, American production must take the situation on those markets into account, in one way or the other.

The extent of the fall in prices during these years may be seen from the following table, giving the index numbers (1909-1914 = 100) of farm prices of some main groups of agricultural products:

Year	Grains	Cotton and cottonseed	Fruits	Dairy products	Eggs and chickens	Meat, animals	All groups
1929.	120	144	141	157	162	156	146
1930.	100	102	162	137	129	133	126
1931.	63	63	98	108	100	92	87
1932.	44	47	82	83	82	63	65

This policy of facilitating the accumulation of stocks in order to maintain prices contributed both to maintaining production during this period and to diminishing exports. It is difficult however to say whether exports would have been higher in this period if the market had been left free, since production too would probably have diminished. It will be seen that the index of all the groups taken together fell during these four years from 146 to 6.5 whilst the greater falls occurred in the groups containing the two major export products, wheat and cotton. The price of the latter fell in fact from an average of 18.6 cents per lb. in New Orleans in 1929 to an average of 6.3 cents in 1932, whilst that of the former in Chicago (No. 2 Hard Winter) fell from an average of 123 cents per bushel to 53 cents.

American farm production as a whole was well maintained during these years; in fact it was slightly higher than the average of the preceding five years. The general index of the volume of farm production (1924-29 = 100) moved through 101, 101, 107 and 100 in the four years 1929-32. The production situation in the separate groups may, however, be better seen from the following indices.

It will be seen that production was above that of the preceding period in the case of livestock and products, but, with the exception of 1931 as regards cotton, lower in those of the grains taken as a whole and of cotton. This does not however mean that the production of the main export products had seriously

Year	Grains	Cotton and seed	All crops	All livestock and livestock products
1929	93	99	97	104
1930	85	92	95	105
1931	89	112	104	109
1932	85	86	90	107

diminished. As regards wheat the average harvest during these four years was some 30 million bushels above the average of 1925-29, and in 1930 and 1931 the harvest was in fact much larger. It should also be noted that in each of these years the area harvested was appreciably larger than in the previous periods. As regards cotton the average during the four years was roughly the same, and substantially higher in the crop year 1931-32. For completeness we may give the actual figures, which were as follows:—

Products	Average 1925-29	1929	1930	1931	1932
Wheat (million bushels)	823	823	886	941	756
Cotton (million bales of 478 lbs. net)	15.3	14.8	13.9	17.1	13.0
Tobacco (million lbs.)	1,356	1,532	1,648	1,564	1,017

We add figures for tobacco which show that until 1932 production was at a substantially higher level than in the preceding period. All these figures therefore indicate that this period was characterised by a failure to adjust production to a declining market.

Each of these four years saw an enormous decline in the value of agricultural exports. In 1928-29 the total value, as we saw above, equalled 1,847 million dollars. In the four subsequent trade years this figure fell to 1,495, 1,038, 752 and 590 million dollars respectively. In this last year exports thus represented less than one third of their value in 1928-29.

The decline, though severe in all branches, was not evenly distributed among all the leading groups. Grains were by far the heaviest sufferers, as the following table shows:

Year	Raw cotton	Fruits and preparations	Raw tobacco	Grains and flours	Feeds and fodders	Pork and lard
Millions of dollars						
1928-29	868	149	148	321	34	161
1929-30	671	110	148	238	24	156
1930-31	424	120	142	141	8	97
1931-32	339	92	86	99	16	54
1932-33	324	67	63	37	7	44

Thus the value of exports of grains and flours fell to only slightly above one tenth of their level in 1928-29. On the other hand, the absolute losses in cotton exports were greater than the losses on all the others taken together. As regards cotton, the decline in the value of exports was due less to a falling-off in their volume than to the fall in prices. In 1929-30 and 1930-31 the volume was indeed lower than in preceding years, being 6.7 and 7.0 million bales (478 lbs net) respectively compared with an average of 8.0 million in 1925-1929. In 1932 however this volume actually increased to a figure higher than in any year in the post-war period, except for 1926, reaching in fact 9.1 million bales. The decline in the value of cotton exports did not therefore indicate so much the abandoning of the world market by the United States, as the collapse of the world market itself. In fact American cotton supplies to the world market represented three quarters of world net exports in 1932. In these years the world was showing its inability to take the supplies of American cotton, except at enormously reduced prices, which America was unwilling to accept, so that American cotton stocks accumulated to an unprecedented level.

The fall in the export value of wheat was due to the fall both in volume of wheat exported and in prices. In each successive year there was a substantial fall, the total exports of wheat and flour falling from 153 million bushels in 1929 to 131 million in 1930, to 136 million in 1931 and to 41 million in 1932. Thus exports were reduced by nearly three quarters in these four years in which, as we have seen, production was still maintained at pre-crisis levels. The decline in the world demand for American wheat reflected not only the shrinkage in world purchasing power (the principal influence causing the fall in the value of American cotton exports) but also the high degree of protection adopted by the European countries for their wheat production and the increased ability of other overseas wheat exporting countries to compete with the United States, as a result either of their joining the countries with depreciated currencies or their belonging to an imperial tariff system. American wheat exports declined in proportion not only to American production but also to world exports. The precipitate decline in 1932 again reflected the unwillingness of America to sell at prices dictated by world.

The export market for American tobacco has a special character, particularly through its great dependence on a limited number of countries of which the United Kingdom and Canada are the chief. Until 1932 the volume of tobacco exported was maintained and the fall in value could be attributed mainly to the depreciation of sterling. In 1932 however the volume of exports fell to 400 million lbs. compared with 540 million in 1925-1929. In spite of this fall, however, the position of America on the world tobacco market could not be regarded as being substantially changed, for American tobacco competes only to a very limited degree with other tobaccos.

As regards the exports of pigmeat and pig products, this market had been declining for many years, both as a result of declining demand abroad and of increasing domestic consumption. In 1929 the total volume of exports equalled

5.4 million quintals, which may be compared with 7.6 million in 1924 (1). The world crisis naturally accentuated the decline, the volume of exports falling to 3 million quintals in 1932. The exports of pigmeat alone fell from 1.5 million quintals in 1929 to only 500,000 in 1932, representing only one fourteenth of world exports, compared with one fifth in 1929. Thus the world market in this important item of the American agricultural export trade was turning definitely away from the United States.

Summarising the events of this period, it may be said that the situation of American agriculture as regards the export market had been substantially weakened not only absolutely but also relatively to the other large overseas exporting countries. Furthermore this weakening had occurred even though there had been no substantial shrinkage in domestic production. By the beginning of 1933 it was clear that to remedy a situation which had become disastrous to the American farmer through the collapse of both the domestic and export markets, new methods had to be adopted. The methods which were first improvised and later consolidated were such as to change almost radically the rôle of the export market in American agriculture.

(To be continued).

A. EMANUEL.

INTERNATIONAL CHRONICLE OF AGRICULTURE

FRENCH COLONIES

PROTECTORATES AND MANDATED TERRITORIES.

The currency of the majority of the French Colonies is the franc. The piastre of Indo-China is linked to the franc. Consequently the Colonial currencies have shared the experience of the money of the mother country. Their depreciation since September 1936, however, had a much greater effect in increasing colonial exports than the fall of the franc had in increasing French exports. The exports of Indo-China in particular have been greatly stimulated, prices have risen, and there has been a distinct economic recovery in that country. The decline of the franc also had a beneficial influence on the economy of French West Africa. Franc prices of the principal export products—oilseeds, cacao, mahogany, cotton—have risen. Production of the principal products has increased because of favourable climatic conditions. Exports have increased both in value and in weight. In North Africa, the economic situation is not so good, and improvement there is much less perceptible. Here, in particular in Morocco, the wheat harvest was deficient in 1936. In 1937, though the harvests were fairly good in Algeria and good in Tunis, that in Morocco, although better than in 1936, was again deficient. In Morocco the yield was low and the area sown in 1936 was less than that in 1935. Native production was affected more than European. In 1937 it was

(1) International Trade in Meat. op. cit.

particularly the harvest of hard wheat, which is the chief variety grown by the natives and which plays an essential part in their food supply, which was poor, and the proportion of hard wheat in total wheat production fell. Livestock also suffered from deficiency of fodder and from an epidemic of foot and mouth disease, which became less serious in the latter months of 1937, and stock is recovering slowly. The maize crop, furthermore, which is rather an export crop, was also poor in Morocco.

I. — MEASURES AFFECTING MARKETS AND PRICES

Customs tariffs.

Algeria, from the point of view of the customs tariff, is completely assimilated with the mother country, and changes in the French customs tariff apply automatically to Algeria.

In principle they apply also to the other so-called "assimilated" colonies—Indo-China, French West Indies, Madagascar. However, exception can be made on the demand of the local councils, which are called general councils, financial delegations or government councils, according to the colony. Thus Indo-China has not given effect to certain of the tariff reductions of October 1936 and has demanded for certain products reductions not provided for by the decrees of October 1936. This country has demanded exemptions from duty increases made by the decree-laws of July 1937 in the case of products in respect of which the reductions made in 1936 were not applied in Indo-China and for those products for which this country had previously demanded special reductions. These demands for exemption refer—as regards products dealt with in this *Bulletin*—to live sheep, meat, butter, wheat, malt, semolinas, and certain food pastes (1). A decree of 15 March 1938 prohibited exemption from the increase of 13 per cent. in respect of the above-mentioned products (2).

The other colonies are called "non-assimilated," and they have local customs tariffs. The customs tariff on foreign products entering French West Africa was modified by a decision of the local assembly taken on 28 October 1937. A decree made on 9 March 1938 approves certain of the proposals and rejects others. The customs tariff of French West Africa is very different from that of the mother country. Most of the duties on agricultural products which the country does not produce are *ad valorem*. For salted, pickled, smoked, rolled, boned or otherwise prepared meat, for prepared pig meat, for preserved meat other than foies gras and meat prepared with truffles, for animal fats and for milk, the rate of duty is 7 per cent.; for cheeses 10 per cent.; for foies gras 15 per cent.; and for meat prepared with truffles 12 per cent. The duty on ordinary table wine is 40 per cent. Oil seeds and oil-yielding fruits imported from abroad pay specific duties; the rate on groundnuts, unshelled, is 8 francs per quintal; shelled, 11 francs. Those for sowing purposes enter free of duty. Specific duties are levied on sugar: 25 francs per quintal on refined, and 10 francs on unrefined. Liqueur wines with alcoholic content 23 degrees or less pay a specific rate of 340 francs per hectolitre; spirits and liqueur wines with alcoholic content over 23 degrees pay 860 francs

(1) Notice of decision taken by the permanent commission of the government council of Indo-China, concerned with the application in this colony of the provisions of the decrees of 8 and 28 July 1937 relating to the French customs tariff. *Journal officiel*, 28 December 1937.

(2) *Journal officiel*, 27 March 1938.

per hectolitre of alcohol content. Fresh and refrigerated meat pay a specific rate of 50 francs per quintal net. By a decree of 9 March 1938 the specific duty on live adult cattle is 100 francs per quintal; the rate on live calves is 125 francs, and the same rate is payable on live sheep, with the exception of lambs weighing 10 kilogrammes or less, which pay 10 francs per head (1).

A decree of 18 November 1937 promulgated in French West Africa on 6 January 1938 subjects wines produced in and coming from Morocco to a duty of 25 per cent. *ad valorem*, at the time of their entry into this colony, and sugars produced in and coming from Morocco to a specific duty of 18 francs per quintal. The decree of 30 April 1935 established in New-Caledonia and its dependences temporary supplementary duties on certain animal products and hides. The decree of 7 March 1934 modified the customs tariffs of these countries for oilseeds and oil-yielding fruits and for fat-yielding products and their derivatives. The decree of 13 June 1934 suspended the duties on hides exported from these countries. All these customs duties were continued until 31 December 1938 by a decision of the general council of New Caledonia dated 1 December 1937 and approved by decree of the President of the French Republic made on the proposal of the Minister for the Colonies dated 15 February 1938.

Measures concerning the Trade between France and its Colonies.

A decree-law of 25 August 1937 provided for agreements between French and French colonial producers with the object of dividing the French and colonial markets and gave to the government the power to sanction these agreements and to apply penalties for cases of infraction. Another decree-law of the same date provided for agreements between producers of the various colonies with a view to apportioning their exports to the French and Algerian markets, and gave to the government the right to carry out, in the case of a failure of the producers to come to an agreement, this apportionment and provided for penalties.

General Price Policy.

The decree-law of 1 July 1937 relative to price increases applies to Algeria as well as to French West Indies and Réunion.

A decree of 25 August 1937, modified by a decree of 25 April, has the purpose of preventing and penalising all illegitimate increases of prices in the colonies, protectorates, or mandated territories, under jurisdiction of the Ministry for the Colonies, other than Martinique, Guadeloupe and Réunion; it provided for the setting up in these various territories of committees for the supervision of prices. Agricultural products sold directly by producers and products, the prices of which are fixed by the administration, are exempted from the provisions of these decrees and do not come within the purview of the committees for the supervision of prices. In the case of agricultural products sold through middlemen the committees can require and examine justifications for a rise of prices.

Similar committees regulated by the Dahirs of 1 and 6 July 1937 are operative in Morocco.

(1) Notice of a decision to modify the customs tariff applicable to foreign products imported into the French West African colonies. *Journal officiel de la République française*, 26 December 1937; and an annex to this notice. *Journal officiel*, 7 January 1938. Decree of 9 March 1938 in *Journal officiel* 13 March 1938.

The Wheat Market.

In conjunction with the authorisation to import 300,000 quintals of foreign wheat into France at the end of the 1937-38 season, a decree of 31 March 1938 establishes a minimum milling percentage of 15 in respect of Algerian, Tunisian or Moroccan hard wheat in the production of semolinas, alimentary pastes, ship biscuits and similar products (1).

Algeria. — The law of 15 August 1936 concerning the Wheat Office is in force in Algeria under conditions established by the decree of 21 September 1936. A decree of 30 July 1937 fixed the price of hard wheat for the 1937-38 season at 170 francs per quintal with a monthly supplement of 1 franc up to and including January and of 1.50 franc for the following months. From then in order to take account of the increases in transport costs this price has been raised by 3 francs per quintal. The price of soft wheat has been fixed at 178 francs per quintal with the same monthly supplement.

Morocco. — The decree of 19 June 1937 which fixes the quotas of Moroccan products to be admitted free of duty into France and Algeria during the period ending 31 May 1938 has increased from 150,000 to 200,000 quintals the quantity of hard wheat to be admitted free into France and Algeria, while the quota of soft wheat has been maintained at 1,650,000 quintals. (2)

A Dahir of 24 April 1937, modified in certain points by a Dahir of 16 September 1937, set up an Intervocational Wheat Office administered by a council of 33 members in which there are 16 representatives of wheat producers, and representatives of trade and industry and of consumers. The most important decisions are taken by the Director of Economic Affairs who receives advice from the Office whose function is consultative. The Director of Economic Affairs fixes in this way the price of wheat. The Government fixes the quantities of wheat to be imported and in the matter of imports the function of the Office is one of control. A decision of the Director of Economic Affairs dated 14 June 1937 fixed the price of soft wheat, delivered to the mill, at 137.50 francs per quintal and the price to producers paid in the centres where stocks are held at 132 francs. Since then the price of wheat delivered to the mill has been raised to 150.50 francs per quintal from 16 September 1937, while the rate of compensatory duty within the country was fixed at 10 francs. To this price a monthly supplement of 1.50 franc per quintal is added. Supplements and deductions are provided for in respect of differences of specific weight and degree of impurity. Further premiums are provided for in the case of wheat with a high bread-making value.

A decision of the Director of Economic Affairs taken on 11 June 1937 fixed the price for hard wheat delivered to the mill at 128.50 francs per quintal with supplements and deductions in respect of differences of quality and a monthly maintenance supplement of 1 franc per quintal. Since then the price of hard wheat delivered to the mill has been raised to 147 francs per quintal from 16 September 1937, while the purchase price paid to producers was fixed at 144 francs per quintal.

(1) *Journal officiel*, 13 April 1938.

(2) For details of the quotas for Moroccan products to be admitted free of duty into France and Algeria we refer the reader to the publication of the International Institute of Agriculture: *Government Measures affecting Agricultural Prices*, No. 10.

A compensatory duty in respect of stocks of wheat, flours, and semolinas, is provided for in the case of a rise in the price of wheat. The rate of this duty is fixed by decision of the Director of Economic Affairs. It is to be equal to the difference between the new and the old price.

The millers have not the right to buy wheat directly from the producers who have to sell their wheat either to co-operative organisations or to traders approved by the Wheat Office. The creation of any business for the purchase, stocking or sale of wheat will in the future be lawful only if authorised by the Director of Economic Affairs on the advice of the Administrative Council of the Office. However the purchase and sale of wheat, flours, and semolinas by retail traders on the "souks" in order to satisfy the daily demand for family consumption remains free. The observation of these regulations concerning the purchase and sale of wheat is checked by obligatory transfer certificates issued against wheat on delivery from the stock centres.

In the case that the harvest of soft wheat exceeds the internal consumption and the amount admitted free into France and Algeria it is provided that a valorisation stock amounting to not more than 3,000,000 quintals per season may be constituted. Further surpluses will be put on the world market or applied to any other use. There is a provision for export bounties.

It is obligatory for European farmers to declare the extent of the area sown; for native farmers estimates of the area sown and of the harvest gathered are to suffice.

The Barley Market.

Morocco. — In order to assure the country's supply of barley exports were prohibited by a Dahir of 27 March 1937. However for some time there have been trading agreements between the French brewing industry and Moroccan barley growers. A quota of 200,000 quintals of malting barley to be admitted free into France was granted these growers in June 1937. In order not to damage these trade relations an exception to the Dahir of 27 March 1937 was made by the Dahir of 20 August 1937 which authorised the export to France and Algeria of 20,000 quintals of malting barley, an amount which thus represents a tenth of the quota granted by the home country (1). A decision of the Director of Economic Affairs taken on 21 August 1937 fixed the qualities which the malting barley for export must be; they are to be standardised in two types, one for high quality barley and the other for medium quality barley.

A Dahir of 4 November 1937 exempted from customs duties barley imported between 3 November 1937 and 31 March 1938.

The Maize Market.

A decree of 8 February 1938 fixed at 6,000 metric tons the quantity of maize grain produced in Cameroon to be admitted free of duty into France and Algeria during the year 1938 (1).

A decree of 23 March 1938 fixed at 2,500 tons the quantity of maize in grain produced in French Equatorial Africa to be admitted free of duty into France and Algeria during 1938 (2).

(1) *Journal officiel*, 11 February 1938. — (2) *J. o.*, 30 March 1938.

The Meat Market.

North-Africa. — By reason of foot and mouth disease restrictions have been put on the import of animals from North-Africa into France, which constitutes for these countries a privileged market where they are protected against foreign competition, by import prohibition in the case of pigs, or by quotas in the case of sheep. A ministerial order of 22 May 1937 prohibited the import into or transport in France of live cattle, pigs, sheep, or goats, coming from North Africa. Certain exceptions have been made since June and further exceptions were made in November. The orders made in November were replaced by others made in January 1938, and exceptions were introduced in March. From that time, pigs, cattle, sheep and goats from French North Africa are admitted into France through the ports of Bordeaux, Marseilles, Port-Vendres and Sete for direct shipment to public abattoirs or regularly-inspected industrial abattoirs (1). Such stock coming from Tunis is admitted through the ports of Ajaccio and Bastia in Corsica, but only if shipped directly to public abattoirs in these towns.

The Sugar Market.

Trade between France and the Colonies. — French and French colonial sugar producers divided between themselves in 1934 the French and Algerian markets by agreements which the French government officially sanctioned by the decree of 30 October 1935. The agreements expired on 30 October 1937 and were renewed only in March 1938. A decree-law of 27 August 1937 which came into force on 1 October 1937 repealed and replaced the decree of 30 October 1935; article 4 of this decree-law provides penalties for the supplying for consumption in France of colonial sugars in violation of legal provisions, regulations, or approved contracts, having the object of equalising the production of sugar in France and the colonies and the import of colonial sugar, with the consumption needs of France and Algeria. Anticipating renewal of the producers' agreements, a decree of 30 September 1937 fixed the quotas of colonial sugar to be imported into France and Algeria for the period 1 October 1937 to 30 September 1938; this decree was annulled when the agreements were renewed. Finally from 11 January 1938 sugars from the so-called "assimilated" French colonies (2) are admitted into France and Algeria in unlimited quantities subject to the usual duties and taxes but not subject to the penalties provided for by Article 4 of the decree-law of 27 August 1937 (3).

On 7 March 1938 French and French colonial sugar producers made agreements which were approved officially by the Government and made into law and legalised by a decree of 8 March (4). The proportion of colonial production in the total of French production *plus* imports from the colonies is to be 14 per cent. for the season ending 30 September 1938, 14.75 per cent. for the season 1 October 1938 to 30 September 1939 and 15 per cent. for subsequent seasons. The total of French production *plus*

(1) See the *International Chronicle of Agriculture* on France in the January and April 1938 numbers of this *Bulletin*.

(2) The French colonies which export sugar belong to the "assimilated" group.

(3) *Journal officiel*, 11 January 1938. — (4) *J. o.*, 9 March 1938.

imports from the colonies was fixed by a ministerial order of 8 April 1938 at 1,080,000 metric tons for the period 1 October 1938 to 30 September 1939 (1).

In addition to the regular quotas mentioned above, colonial producers may import 30,000 metric tons of sugar during the season 1937-1938. During the season 1938-1939, furthermore, the colonies can import 10,000 metric tons over and above their regular quotas on condition that they reduce their imports in respect of the regular quotas in each of the two following seasons by 4,300 metric tons.

Deficits in imports in respect of these quotas can serve to compensate a surplus in French production and in the same way any deficit in French production can be compensated by supplementary imports from the colonies.

The penalties established by article 4 of the decree law of 27 August 1937 refer to colonial sugar imported in violation of these agreements and have effect as from 1 July 1938 (2).

A decree of 9 March 1938 lays down the conditions for controlling imports of colonial sugar (3). Another decree of the same date (4) set up a committee at the Ministry of Agriculture, which is charged with examining all questions relating to the fixation of quotas for French and French colonial sugar production and relating to exportation and the release from stores of stocks of sugar formed out of surpluses in French and colonial production.

Producers of sugar in France have agreed not to encroach on the domestic market of the sugar-producing colonies and sugar producers in each of the various colonies participating in the agreements reciprocally engaged not to encroach on the domestic market of the other parties.

The total quota allocated to the colonies is divided between them as follows:

Before any allocation is made, 2,000 metric tons are granted exclusively to Réunion as compensation for loss of the markets of Madagascar and Indo-China; 6,000 metric tons for the factory of Namakia; 3,000 metric tons for the group Indo-China, Comores and East Madagascar (of which 2,200 metric tons are for Indo-China). In addition, beginning with the season 1939-1940, 2,500 metric tons will be granted to Guiana. The remainder of the total quota is divided amongst the colonies on the basis established in 1934, *i. e.*, Réunion 30.99 per cent., Martinique 30.27 per cent., Guadeloupe 26.15 per cent., Nossi-Bé 4.59 per cent. Any deficits or surpluses of the colonies in respect of the total annual quotas are compensated between the colonies.

Production.

The decree law of 27 August 1937 made subject to the authorisation of the Minister for Colonies the establishment of new sugar factories in Antilles and Réunion.

Rum Market.

A decree of 8 March 1938 (5) set up at the Ministry for the Colonies an Advisory Committee for Rum, which will advise on all questions submitted to it by the Minister regarding production, distribution and sale.

(1) *Journal officiel*, 12 April 1938. — (2) *J. o.*, 13 March 1938. — (3) *J. o.*, 12 March 1938. — (4) *J. o.*, 13 March 1938. — (5) *J. o.*, 9 March 1933.

The same decree fixes schedules for shipments of rum from the colonies to France and for the delivery for consumption of rum in customs warehouses in French ports. Measures relating to the fixing of such schedules will be taken by the Minister for the colonies on the advice of the Advisory Committee on Rum. By an order dated 5 April 1938 issued by the Minister for the Colonies all rum in warehouses or afloat is to be held up in customs warehouses (1).

An order of the Minister for the Colonies and the Minister of Finance of 22 April 1938 fixed the proportion of the amounts held up which may be sold for consumption.

Wine Market.

Morocco. — A vizirial order of July 1937 submitted the imports of wines and spirits into Morocco to the previous authorisation of the Director of Economic Affairs and established a quota for the import of rum.

This order set up regulations for the production of, and trade in, wine in Morocco. It provides measures to facilitate the absorption of surplus wine particularly by distillation, and the prohibition of the planting of vineyards has been made final.

Oil Market.

Groundnuts are the principal export of French West Africa. They are exported almost entirely to France, most often in a natural state, and transformed in France into oil. Firms have been founded however in French West Africa for the manufacture there of groundnut oil. An agreement was made on 30 March 1938 between representatives of the French and the French West African oil industry. Under this agreement the French and Algerian markets are divided up. It was concluded for a period of 5 years and legalised by a decree of 8 April 1938 (2). The annual quota of colonial groundnut oil to be admitted into France and Algeria was fixed under the agreement at 5,800 metric tons. Quantities imported in addition to the quota will pay a tax equal to the minimum tariff rate. The quota is to be divided exclusively between factories which had already exported groundnut oil to France or Algeria before 1 January 1938; other factories are excluded from the quota.

II. — MEASURES AFFECTING AGRICULTURAL ECONOMY IN GENERAL

The System of Land Ownership in French Equatorial Africa.

A decree of 10 February 1938 had the object of granting to the native population of French Equatorial Africa the means of establishing their land rights with small expense and according to a procedure adaptable as much as possible to their customary rules (3).

(1) *Journal officiel*, 6 April 1938. — (2) *J. o.*, 12 April 1938. — (3) *J. o.*, 12 February 1938.

Agricultural Credit.

A decree-law of 25 August 1937 authorised the agricultural credit bank to grant certain loans to the agricultural credit institutions of Morocco, Algeria, and Tunis, up to the amount of 20,000,000 francs in the case of Algeria, 20,000,000 francs in Morocco and 10,000,000 francs in Tunis (1).

A system of warrants for wine was organised in Morocco by a vizirial decree of 19 November 1937 (2) which repealed and replaced the vizirial order on the same subject of 16 September 1937.

A decree of 25 December 1937 concerns agricultural credit granted by administrators of the collective fund of the native provident societies of Togoland either to members of these native provident societies or to agricultural cooperative societies set up by them with the authorisation of this administration (3).

PORTUGAL

Since the financial situation has been cleared up and the budget balanced, the general economic position of Portugal has continued to improve. Agriculture — the principal source of the Republic's wealth — plays a preponderant role in economic reconstruction. This is reflected in the continual increase in exports, especially of wines; in the reduction in imports of certain primary agricultural products: thus, the production of wheat, which was formerly a deficit crop, is approaching the point where it will cover the requirements of consumption; and in the reduction of rice imports, which are continually diminishing because of intensification of cultivation and regulation of the trade in this cereal. The increase in production of olive oil has benefited the flourishing industry of conserves in oil.

Wholesale price indices for 1935, 1936 and 1937, (1929 = 100) were 82.9, 85.9 and 101.1 respectively. These indices bear a close relation to wages of agricultural workers. The daily average wage, which amounted to 7.5 escudos in 1929, fell to 6.5 in 1935, rose to 7.0 in 1936 and 8.7 in 1937 thus rising above the average of 1929:

The parallel rise in prices and wages continues to be reflected in the cost of living, the index number of which was 83.9 in 1935, 85.6 in 1936 and 106.4 during the past year (base 1929 = 100).

Agriculture occupies the first place in 1937 foreign trade, of which it represents 65 per cent. Wine is the leading agricultural export. According to the data of the National Statistical Office of Portugal agricultural exports amounted to 1,813,000 tons valued at 1,216,267 *contos* (4) during 1937, against 1,661,000 tons worth 1,020,000 *contos* in 1936.

Wheat production, which was sufficiently large during 1936 to permit exports to the value of 620,000 *contos*, was not great enough during 1937 for any exports to be made, but at least covered the country's total needs. The position was the same

(1) *Journal officiel*, 26 August 1937. — (2) *Bulletin officiel du Maroc*, 19 November 1937. —

(3) *Journal officiel*, 1 January 1938.

(4) 1 *conto* = 100 *escudos*.

in the case of rice; a very small quantity had to be imported only for the colonies, since Portuguese production was sufficient to meet requirements.

All these factors contributed towards improving the position of farmers. Furthermore, there was a constant diminution in unemployment, since the new policy of national reconstruction absorbed more and more labour. In addition, the new corporative structure which is spreading continually into all spheres of national activity helped economic improvement. According to the statistics of the Bank of Portugal, the index of general economic activity (1929 = 100) stood at 121.7 in 1935, 124.3 in 1936, and 128.6 last year.

I. — MEASURES AFFECTING MARKETS AND PRICES

General Price Policy.

As Portugal's financial and commercial relations with Great Britain are very close the escudo follows sterling, and prices have gradually conformed to the new value of the currency. This enabled the worst difficulties resulting from the world crisis to be overcome.

The Wine Market.

In order to improve, as far as possible, the conditions of the marketing of wine, the Government introduced through the corporative mechanism a series of measures for the better organisation of the wine market.

A programme of complete reform in the organisation of export of Portuguese wine was drawn up by the Government. Under this programme wines, especially port wines, can be exported only by producers and dealers enrolled in State corporative bodies controlling this branch of national activity (National Wine Council, *Casa del Douro*, Corporative Syndicates of Exporters, and the National Wine Institute). All Oporto wine exported must bear a certificate of origin. Such certificates are delivered only if the wine to be exported is of the required quality; otherwise, export is forbidden. Exports in excess of the quantities declared for the purpose of the certificate are also forbidden. A "minimum price" for sales is to be established by the Government, and its observance is to be strictly enforced.

Further provisions, complementing those outlined above, have been made with a view to improving production so that typical Portuguese wines will be so superior to imitations that there will be no danger of fraud. To this end, the principal measure of defence has been the creation of a Syndicate for the Protection of Port Wines, which operates mainly in those foreign markets where such wines are sold.

Decree No. 28,482 of 18 February 1938 fixed the domestic wholesale price of ordinary table wine at 1.20 escudos per litre and the retail price at 1.40 escudos.

Loans may be granted to vine-growers under the same decree up to a total of 0.50 escudos per litre of wine produced. Such loans are to be exempt from taxes.

The Cereal Market.

Wheat. — Ten years ago, the percentages of the various bread-making cereals consumed in Portugal were maize 50 per cent., wheat 34 per cent., and rye 16 per cent. The Ministry of Agriculture began its Wheat Campaign in 1930 and by introducing a

series of carefully worked-out legislative measures succeeded in making wheat the chief cereal used in bread-making.

Wheat production increased up to 1934 and 1935, during which years the country's requirements were entirely covered, and because of favourable political and climatic factors, it was possible during these two years to put into store some 900,000 quintals.

There was a deficit in production during the following two years 1936 and 1937 – but this did not cause the Government any difficulty, as deficiencies could be covered for the greater part by drawing on the stocks. The fixed price for 1937 was the same as in 1935, *viz.* 130 escudos per quintal.

Faced with the prospect of another deficit crop, the Government is engaged in studying the possibility of maintaining its fixed prices and indemnifying producers for eventual losses by a large credit spread over a number of years, since only over a longer period can it be determined whether average crop production during the period has yielded a profit or loss to the farmer.

Rice. — In order to make up deficiencies in rice production and to regulate the rice trade, the Government set up a regulating committee charged with promoting production, controlling trade and fixing annual import quotas, taking into consideration regional preferences for home-grown or imported rice, the necessity of increasing domestic production, the facilitation of marketing within Portugal of rice grown in the Colonies, and the protection of the domestic rice milling industry.

From the beginning of 1934, when this committee was set up, to the present, production in Portugal has more than doubled (577,000 quintals available for consumption in 1937 as compared with 256,000 in 1934). For this reason it was possible to reduce import quotas, from 328,000 quintals for 1934 to less than 50,000 for 1937.

With the object of regularising the new position, the Government issued two decrees during February 1938 (1). The first, in consideration of the fact that current production covers consumption requirements, limits the extension of crop areas for the current year as follows: 10 per cent. for areas of 5 to 50 hectares, 12 per cent. from 50 to 100 hectares, and 15 per cent. for rice areas over 100 hectares. The second decree-law lays down provisions regarding rice holdings already in existence, and the conditions which must be conformed to by holdings which in the future will be given over to rice cultivation. This is because production, in order to make up deficits, had been extended to areas close to centres of population and to marshy zones, thereby endangering public health because of the peculiar conditions associated with the cultivation of rice.

The Olive Oil Market.

Portugal produces an average of 600,000 quintals of oil per annum worth roughly about 400,000 million escudos. The amount produced approximates quite closely to consumption, estimated at 10 litres per head, or a total of nearly 600,000 quintals, the figure given above.

As imports are limited as regards both quantity and quality, prices automatically rise when there is a deficit in oil production.

The situation during the past oil season (1937) was as follows: 1936-37 production, was only 302,700 quintals, and an automatic rise in prices would have occurred had

(1) Nos. 28,493-94 of 17 February 1938.

it not been for the immediate intervention of the State (1). In consideration of the fact that production was insufficient, that olive oil is a product of prime necessity for the country, and that the level of oil prices is harmful if it exceeds the purchasing power of consumers or is below costs of production, the Government took the following measures: Importation of oil for alimentary purposes was authorised on condition that the produce conformed to existing legal prescriptions. The sale of imported oil was allowed up to 30 November 1937. During this period of unrestricted importation, the Minister of Finance was empowered to reduce, even completely to abolish, customs duties on authorised imports of oil. By establishing one period for the importing of oil and another for its sale, the market disturbance which might have resulted should the new crop be above the average, was avoided.

II. — MEASURES AFFECTING AGRICULTURAL ECONOMY IN GENERAL.

Corporative Agriculture.

Agriculture in Portugal is organised along corporative lines. Syndicates of employers and of agricultural labourers and federations of these bodies were created provisionally, with a view to grouping together all agricultural activities. The success of this organisation induced the Government in 1937 to decree a totalitarian corporative organisation for agriculture (2).

This law seeks to conciliate the existence of bodies already created with the necessities imposed by current conditions, and with the obligations imposed by the National Labour Code.

The fundamental principles of the law can be described as follows: The almost exclusive function of the State will be that of arbitration and coordination, and in cases of failure to act on the part of interested parties, the State will intervene directly and take whatever measures are necessary. Individual initiative is to remain under the guidance of the social, economic and technical bodies. The organisation is to be totalitarian in the sense that no activity is to remain outside its sphere.

Comprehensive Land Improvement.

Portugal has undertaken a programme of land improvement by irrigation and drainage, with objectives that are economic and social rather than technical: promoting demographic policy, combatting rural exodus, encouraging land settlement, increasing production and exports.

In 1937, which is the third of the seven years provided for the application of this programme, it has already yielded tangible results. Unemployment has decreased as a result of the absorption of labour by the new organisations created for the management and exploitation of the areas already improved. The irrigation of new areas given over to rice has enabled the provisions of the two decree-laws mentioned above in connection with rice-growing to come into force.

(1) Law No. 115 of 10 January 1937, brought into force by decree No. 118 of 16 February 1937.

(2) Law No. 164 on the totalitarian organisation of agriculture, 15 March 1937.

UNION OF SOUTH AFRICA

Conditions since the beginning of 1938 have reflected the usual seasonal decline, which was accentuated in certain sections by destructive rains, by lower wool prices in a weak market and by prospects of smaller crops of certain fruits. Employment, however, was generally well maintained, wage disputes in the building and leather industries were not expected to cause serious disruption, and new labour legislation should aid stability. Housing schemes are being developed in several cities, and building contracts and sales of material have been maintained fairly well.

The year 1937 was, in general, one of uninterrupted prosperity, notwithstanding severe disturbances in the security markets due to rumours from Washington regarding the proposed suspension of gold purchases by the United States. All previous foreign trade records were broken in 1937 when exports totalled £125,395,000 and imports £103,382,000, as compared with £114,192,000 and £86,299,000 respectively in 1936. Exports of gold bars were of course the leading item, amounting to £82.7 millions in 1937 as compared with £81.8 in 1936. The values of the chief agricultural exports in South African pounds during 1937 are as follows (1936 values are given in brackets): maize £3,194,000 (£55,664); maize meal £867,900 (£44,600); wool, greasy and scoured £12,645,000 (£9,840,000); citrus fruits £2,056,000 (£1,363,000); deciduous fruits £635,000 (£782,000); grapes £588,000 (£545,000); wine £233,000 (£197,000) dried fruits £262,000 (£358,000); Angora hair £476,000 (£427,000); hides and skins £2,398,800 (£1,915,700); wattle bark and extract £1,000,900 (£776,900); butter £383,500 (£507,200); fresh and frozen meat £253,100 (£288,100); sugar £1,994,000 (£1,184,700).

The latest estimates of production of the chief crops, in short tons unless otherwise indicated, for the year 1937-38 (with 1936-37 production in brackets) are as follows: cane sugar 509,500 (446,400); wheat 304,700 (482,300); barley (bags of 150 lb.) 370,000 (427,900); oats (bags of 150 lb.) 1,247,000 (1,562,000); rye 20,300 (22,340); maize 1,812,200 (2,813,000); tobacco (1936-37) 20,774,000 lb. (1935-36 17,095,600 lb.); wool 276,900,000 lb. (262, 200,000 lb.).

The continuing prosperity of the country is of course mainly dependent on the gold industry, *i. e.* on the output and future price of gold. The Government, however, has adopted a cautious policy in utilizing the abundant surpluses of recent years, in reducing their loan account, building permanent works, and in the permanent rehabilitation of the country. The soundness of South African Government finance can be seen from the fact that the large surplus realised during the year ending 31 March 1937 was used entirely for reducing debt or the relief of the loans account, reducing the taxpayer's burden by some £175,000 per annum. Further reductions in taxation were introduced on the assumption of another surplus for the financial year 1937-38 of £4,450,000. The banking and railway position also remain good.

I. — MEASURES AFFECTING MARKETS AND PRICES.

Trade agreements.

India. — A preliminary trade agreement was concluded with India on the basis of reciprocal most favoured nation treatment. Under this agreement, which came into effect on 28 March 1938, the Union of South Africa does not receive the benefit of

preferential tariffs, but negotiations are to open for a general trade treaty between the two countries under which it is expected that certain South African exports, such as fruit, will be admitted to the preferential list (1).

Germany. — The trade agreement concluded in 1937 with Germany provided for the purchase by Germany of South African products to the value of £4,630,000 for the year ending 31 August 1938, of which £3,250,000 was allocated for wool. The previous (third) agreement covered the year ending 30 November 1937 but the two Governments decided that it would be preferable that the new agreement extend over the year 1 September- 31 August, in order that adequate provision be made at the opening of the South African wool season for German purchases of wool during the entire season. It was announced during March 1938 (2) that Germany would supplement the amount provided for the purchase of South African products as follows: £600,000 for wool and £50,000 for mohair, £10,000 for hides and £4,000 for grapes.

France. — The preliminary trade agreement with France of 27 August 1935 was prolonged in March until 30 September 1938. France gave assurance that the percentage of the global import quotas for deciduous fruit (excluding apples and pears) during the second quarter would be maintained.

Belgo-Luxemburg Economic Union. — A new preliminary commercial agreement was concluded with the Belgo-Luxemburg Economic Union by an Exchange of Notes dated 13 July 1937. The agreement provides, *inter alia*, for reciprocal most favoured nation treatment to all goods in respect of customs duties and other charges levied on imports, and any eventual exchange or payments restrictions. Exception is, as usual, made by South Africa as regards the preferential treatment granted to the United Kingdom and the British Empire under the terms of the Ottawa agreements. The agreement is effective for the period from 27 July 1937 to 30 June 1938, and should a more comprehensive agreement not be concluded before the latter date, it will remain in force until superseded by the proposed agreement or until three months' notice of termination is given by either party.

Estonia. — A dumping duty (3) was imposed on Estonian bacon and ham, to be equal to the Estonian subsidy granted on exports of these products from that

(1) Under Act No. 44 of 1935 a division into a three-line tariff was made. Formerly, under Act No. 36 of 1925, only maximum and minimum schedules were in force, but under the new Act an intermediate schedule is introduced. Briefly, the minimum tariff is applicable to imports from the United Kingdom and the Empire, and incorporates preferences under the Ottawa Agreements. The intermediate rates incorporate the previous maximum duties, and constitute the effective protective tariff for primary and secondary South African industries. It forms the basis for negotiating treaties to secure tariff concessions from other countries in exchange for application of these rates or to obtain reciprocal most favoured nation treatment. The maximum rates are imposed on goods from countries which have no commercial agreement with South Africa.

(2) See *Farmer's Weekly*, 28 March 1938, p. 133.

(3) The principle of dumping and countervailing duties was first introduced under Act No. 26 of 1914, was recognised as a fundamental factor in South African economic development by its inclusion in the *Customs and Excise Amendment Act* No. 23 of 1923, and is now enforced under Act No. 36 of 1925. Cf. *Official Yearbook*, 1937, pp. 936 *et seq.*

country. The dumping duty, proclaimed on 30 December 1937, is not to exceed 50 per cent. *ad valorem*.

Czechoslovakia. — Extension of intermediate tariff rates to Czechoslovakia was granted during June 1937.

Abolition of Payment of Export Subsidies (1).

The payment of subsidies was begun under the Export Subsidies Act of 1931, the main object of which was to compensate farmers for export disadvantages in the important British market resulting from the departure of sterling from gold in September 1931 and for loss of overseas' markets during the depression (2). Under this Act provision was made for the payment of export subsidies of 10 per cent. for a period of 12 months. The period of payment was subsequently extended to six years and the maximum rate raised to 25 per cent., and in the case of beef and mutton to 35 per cent. Important reductions in rates were made in May 1934, March 1935 and March 1936, although an exception was made in the case of beef. This product was heavily subsidised, as it was the Government's intention to encourage beef exports to the United Kingdom.

Payment was sometimes made on the basis of the *free-alongside-ship* value of the product; in other cases a fixed sum of money per unit was paid. Subsidies were paid on no fewer than 96 primary products or classes of primary products. It was the Government's intention that the benefits be received by producers rather than by processors or shippers. Consequently in the administration of the act it was assumed that the identity of the producer could be maintained at the point of exportation. Products on which payments were made were divided into two groups (a) those which were difficult to identify with respect to individual producers, and (b) those which could be so identified. Subsidies were payable to exporters of the first group of products only if they could produce a receipt proving that they have made payment to the producers.

One important difficulty in the operation of this system of subsidies has been that production was stimulated, since there was no attempt to control output. The explanation for this can be found in the dependence of South African agriculture upon an *export* market for most of its products. Since domestic consumption accounts for a relatively small share of the total output of most commodities, production control as a price-raising device was not given great consideration.

Direct subsidies were abolished by 30 June 1937. The Minister of Agriculture stated (3) that the scheme was only a relief measure and with improved economic conditions, it had to be discontinued. Up to the end of August 1937, the total

(1) Exports have been facilitated in South Africa by two kinds of payments (a) a straight subsidy paid out of the Treasury, and (b) a bounty paid under a marketing scheme. The latter may consist of a direct bounty on exports paid out of levies on production, or it may result indirectly from maintenance of prices at levels higher than prevailing export prices. Supplementary to such export benefit payments are import quotas and anti-dumping duties on certain products. South Africa also abandoned the gold standard in 1932.

(2) See the *Economic Commentary* for 1931-32.

(3) In his Annual Report for Year Ending August 1937: in *Farming in South Africa*, December, 1937, p. 494.

amount paid out since the inception of the scheme was £10,888,000. The figures for some of the chief products are as follows: wool £5,345,000, citrus fruits £1,074,000, maize and maize products £825,000, deciduous fruits £899,000, hides and skins £511,000, meat £274,000.

Subsidised Milk and Butter Schemes.

This scheme was inaugurated in 1935 and is administered by a Management Committee of the Dairy Industry Control Board. It consists of three parts, as follows: (a) the supply of *milk* to children in primary schools and to pre-school children; (b) the supply of *cheese* to the above mentioned children, where milk is not available or is not obtainable at a reasonable price; and (c) the issue of State-aided *butter* to approved charitable institutions and organisations at 6d., 5d., and 4d. respectively for first, second and third grade. The difference between these prices and the price of butter on the open retail market is about 1s.3d.

Distribution is carried out by committees of charitable institutions; in the case of individual households, butter-distributing committees approve applicants for State-aided butter which is then issued from central depots on a fixed day each week.

The Railway Administration also made available (during the financial year 1936-37) £25,000 for subsidising the sale of State-aided butter to European railway labourers (1).

During 1937, some 140,000 children in 1,200 schools were receiving milk, and about the same number in 2,200 schools received cheese. The allocation for the 1937 programme was £230,000.

Exportation of Maize.

Under the Mealie (maize) Control Act, the Minister of Agriculture is empowered to prohibit, control or regulate the import of maize or maize products, and to make compulsory the export of specified quantities of maize, thus reducing the amount available for domestic consumption. In recent years, maize dealers have been compelled to export one bag of maize out of every two bags purchased.

The quantity of maize available for export during the year ending 31 May 1938 was provisionally determined at 10,600,000 bags and the export quota for that period was fixed at 66.6 per cent of the total quantity of maize (15,100,000 bags) estimated as available for disposal in the Union.

Prices during the 1937-38 season were fairly good and during a period when Canada was importing maize from South Africa, they were very high. However, a sharp rise in export costs caused by an enormous increase in freight rates (2) induced the Government to re-introduce the so-called guarantee system in respect of surplus quota certificates. Under this system a guarantee is given to traders that they will be compensated for exports in excess of the normal export obligations which they incur under the Mealie

(1) In addition to charitable institutions, weekly butter rations are issued to the following groups of persons: (a) families of at least two persons with combined income not exceeding 6s. per day; (b) families of three or more persons with combined income not exceeding 8s. per day; and (c) European railway labourers having to support families, where combined income of all members of family does not exceed 8s. 6d. per day.

(2) From 1s.7d. to 3s.3d., according to the Annual Report of the Minister of Agriculture.

Control Act (1). On 14 June 1937 the Government announced a guarantee of 3s. per bag in respect of exports between 1 June and 23 June, so that the price to producers was brought to 1s. above export parity. When overseas prices declined sharply the guarantee was raised to 4s. 6d. per bag (2) effective from 24 June. The latest date for applications is 10 July 1938.

The Mealie Control Act was amended during the past session of Parliament in several important respects, particularly in regard to the export of maize, which the Minister was empowered to prohibit at any time. Furthermore, the vesting of the monopoly of the issue of maize exports in the Maize Board has eliminated speculation in export certificates.

With the advent of an extensive drought towards the end of 1937, the export of maize was prohibited for the period from 15 December to 31 May 1938, on the principle that large quantities of maize should not leave the country when extensive areas were drought-stricken and cattle were dying of hunger. Supplies that had been intended for export were placed at the service of stock farmers through the Control Board at producers' prices, which are lower than those paid by the ordinary consumer. With the quick recovery of the country from the effects of the drought, representations were made to the Government to lift the embargo on maize exports, the general rains in December having enabled farmers to carry on ploughing.

In view of the abnormally large maize crop last year the Government decided, purely as a temporary emergency measure, to reduce the freight rates on maize for export as from 23 July 1937. The existing maximum rail rates of 10s. per 2,000 lb. for conveying maize in bulk to Durban for export were reduced to 7s. The maximum rate of 15s. per 2,000 lb. for conveying maize in bags to Durban for export was reduced to 12s. (3).

The position of cooperative societies under the export quota guarantee system also received consideration by the Government, which decided to accede to a request of the societies for an increase in the advance of 5s. 6d. per bag granted by the Land Bank. The Government undertook to make funds available to the Land Bank, to enable it to increase the advance by one shilling above the 60 per cent. limit set by the Bank.

The Marketing Act of 1937.

PURPOSE OF ACT.

The Marketing Act, No. 26 of 1937, was passed by Parliament during June 1937, after many months of discussion and after considerable amendment (4).

The act provides for regulation of the production and sale of agricultural products by regulatory boards on which the various interests concerned are represented, and for the grading and standardisation of agricultural products.

(1) For a detailed account of the working of the export mechanism under this scheme, see *Farmer's Weekly*, 28 July 1937, p. 1525.

(2) The Government made it known at the time that this would be the maximum rate of guarantee.

(3) A summary of the statement issued by the Secretary of Agriculture with the approval of the Railway Administration in connection with the special Permit System introduced to cope with the large quantities of maize offered for storage in the elevators is given in the *Farmer's Weekly*, 28 July 1937, p. 1527.

(4) For a summary of the Bill before certain important amendments were made, see *Farming in South Africa*, January 1937, p. 18. Summaries of the Act are given in this journal, in the numbers

NATIONAL MARKETING COUNCIL.

Composition. — A National Marketing Council is set up by the Act (1), consisting of five members appointed by the Governor-General (he may also appoint six members). The Council is an agricultural body similar to the Board of Trade, with similar powers of investigation and of hearing evidence on oath.

Functions and Powers. — The Council investigates all schemes for the establishment of regulatory boards of control submitted to, and referred to it by, the Minister. It drafts and submits such schemes to the Minister if he desires. It is to assist in the organisation of any regulatory board. The Council also exercises a certain amount of control over all schemes actually in operation, as regards inspection, auditing of accounts, attendance at meetings, etc. It advises the Minister about decisions of the regulatory boards in regard to matters such as prices and quotas. It also advises the Minister about such marketing matters as he may refer to it, and about the prohibition or regulation of imports or exports of any farm product.

The Council has wide powers of control over the activities of the regulatory boards. When investigating a matter involving the fixing of prices, the Council consults the Board of Trade, and indicates in its report to the Minister the extent to which any recommendations put forward by it conflict with the views of the Board of Trade.

PRODUCERS' AND CONSUMERS' COMMITTEES.

Producers' and consumers' committees are set up under the Act. They are advisory bodies which the Minister may consult in connection with any questions affecting producers and consumers, and which the National Marketing Council may consult in regard to any scheme. These committees may make representations to the Minister and to the Council.

Each committee consists of eight members appointed by the Minister for two years, and elects its own chairman.

SUBMISSION OF SCHEMES.

Any producers' association, any cooperative society or company, or any board established under any existing control act (2) may submit a scheme for regulating the marketing of the product in which it is interested. The Minister and the National Marketing Council may also submit schemes.

of July 1937, p. 273, and August 1937, p. 326, by Mr. A. P. van der Post, Assistant Chief, Division of Economics and Markets, Department of Agriculture and Forestry. Comments on the Act by the Minister are published in his *Annual Report*, reproduced in the December 1937 issue of the same journal, p. 490. For discussion and criticism of the legislation, for reports by agricultural bodies, statements, etc. see *The Farmer's Weekly*; the numbers of 10 February (p. 1631), 24 February (p. 1821) and 10 March (p. 1935), 1937, contain comments on the Bill, and the first of these contains an article by Prof. C. S. Richards on the amended form of the Bill. For comments and opinions (etc.) on the Act, see the numbers of 11 August 1937 (p. 1653), 27 October (p. 428) 1937, and 23 February (p. 1661) 1938. In the *South African Journal of Economics*, Vol. 4, No. 4, December 1936, pp. 469 *et seq.*, there is an extended criticism of the earlier form of the Bill by Prof. Richards.

(1) Earlier drafts of the Bill did not provide for the setting up of this Council.

(2) *Viz.* the Dairy Industry, the Live Stock and Meat Industries, the Mealie Industry, the Tobacco Industry and the Wheat Industry Control Boards.

The Minister may, after consultation with the Council (and with the Consumers' Committee in the case of a scheme embodying so-called marketing powers) (1) reject it, or refer it back to the party submitting it, or approve the scheme provisionally. In the latter event, the Scheme must be referred to the Council for investigation, and details of it may be published in the *Government Gazette* and in the private press, inviting interested parties to submit recommendations or objections. After considering the Council's report and any objections or representations, the Minister may submit the scheme to the Governor-General for approval.

ESSENTIAL PROVISIONS OF SCHEMES.

Essential Specifications. — Every scheme submitted must specify the product and the area to which it will apply. It must provide for the proper organisation and administration of such a scheme; for the establishment and method of appointment of the administering board; for the board's funds, powers and duties; for the issue of regulations; and for the definition of persons engaged in the production or marketing of the commodity concerned.

Levies. — Provision must also be made in every scheme for establishing a fund to be administered and controlled by the board, into and out of which all receipts and payments will pass.

The funds are to be raised by a levy on the product concerned. The levy is to be payable by producers on the quantities they sell, or by dealers in the product in the course of trade, or by both producers and dealers. The levy may be imposed on any class, grade, standard or quality of the product and may vary as between these. The levy may also vary as between that portion of the product sold on the domestic market, and that portion exported.

Composition of Boards. — The scheme must provide for the proper representation of producers on the board and may provide that parties other than producers, such as middlemen and consumers, may be represented. The producer-members however, must constitute the majority of the board.

If any board already established under special legislation (1) submits a scheme, it shall be the board to administer the scheme if approved, but in that case the scheme must provide for modifying the constitution of the board concerned so as to conform to the general provisions of the Act.

An important provision of the Act is that the requirements or prohibitions imposed, or the decisions made, by a board, may differ as between different parts of the area to which a scheme applies, or as between quantities of the product treated in different premises or produced under different conditions or utilised for different purposes (2).

POWERS OF BOARDS.

Regulatory Powers. — The Act makes a distinction between the marketing and regulatory powers of boards. Regulatory powers, although similar to those exercised by existing control boards (3), have been considerably extended. The Act provides

(1) See below "Powers of Boards".

(2) See footnote (2) on page 256.

(3) This makes possible differentiation between, say, a milk scheme applied on the Witwatersrand and one applied in Capetown; between farm butter and creamery butter; between milk for liquid consumption and milk for manufacturing purposes, etc.

that producers or dealers shall not sell the product concerned unless they are registered with the administering board (1). A scheme may provide for the keeping of proper records by persons handling the product in the course of trade; for the appointment of advisory committees; for the co-opting of at most two advisory members, and for the levying of fines not exceeding £100 for transgressions of the provisions of the scheme. A board can advise the Minister as to grades and methods of marketing the product, whether produced in South Africa or imported from abroad. It may determine the quantities of the product which may be introduced into, or removed from, or sold in, a specified area during a specified time. A board may act as selling agent, and it may conduct selling pools. It can arrange for treatment of the product concerned, for grading, storing, processing, for insuring, advertising and transporting it. A board may arrange the financing of any pooling operations it may adopt, and the making of advances to contributors to the pool.

A board may make a special levy in order to establish an equalisation fund for compensating losses incurred in respect of shipments to specified overseas markets in consequence of orders issued by the board.

A board may assist by grants or loans any undertaking for the preserving, processing, storing, conditioning, (etc.) of the product, and it may foster research in connection with such work.

Marketing Powers. — The special marketing powers which regulatory boards may exercise relate to the buying, selling and preparation for sale of the product concerned; and to the sale of the product only to, or through the agency of, the respective board or through any agency which the board may determine.

These powers, which are subject to the approval of the Minister, include determination of the description and quantities of the product which producers may sell, and the purpose for which it may be sold, and the range of prices and terms to apply to sales by producers, dealers, or agencies of the board.

A board may, on the approval of the Minister, prohibit the sale of the product concerned except under permits issued by it. Such permits may be cancelled for contravention of provisions and regulations of the scheme.

Legal Status of Regulatory Boards. — A regulatory board shall be a body corporate, capable of suing and being sued in its own name.

APPROVAL OF SCHEMES.

Recommendations to the Governor-General. — If the Minister, after considering the National Marketing Council's report and all objections (etc.) submitted, decides to accept a scheme, he may recommend it to the Governor-General for approval, but he must differentiate in his recommendation between schemes containing merely regulatory provisions and those containing marketing powers as well.

In the case of a regulatory scheme, the Minister may recommend approval without submitting it to the vote of the producers affected (2). If the scheme contains marketing powers, it must be submitted to the vote of producers (3). Parlia-

(1) Persons whose registration is refused by the board have the right of appeal to the Minister.

(2) Similarly he may recommend for approval a scheme submitted by any of the existing five control boards, mentioned in the footnote on page 256.

(3) Except in the case of the existing five control boards.

mentary approval is *not* required for either type of scheme. In its original form, the Bill contained provision for Parliamentary approval but this feature was dropped in the final draft.

Voting. — Any European may vote on a scheme if he is 21 years or older and who, during the three years preceding the date of voting, produced for sale on his own account a minimum quantity of the product and has conformed with certain other requirements prescribed by regulation.

Approval by Governor-General. — In the case of a purely regulatory scheme which was submitted to a vote, the Governor-General can assent only if a majority of the producers voting vote for the scheme, and if they produced during the three years preceding the voting more than one-half the total quantity of the product in the area to which the scheme applies. In the case of a scheme containing marketing provisions, the majority must be three-fifths of the producers concerned, who have to have produced over one-half of the product.

Review, Amendment, Revocation and Suspension of Schemes. — After a scheme has been in operation for two years, the Minister may call upon producers to vote upon the continuance (or otherwise) of this scheme. The voting procedure is the same as in the case of a new scheme.

If the Minister, after receiving representations, believes that a scheme imposes an undue burden upon either producers or consumers, or is contrary to the public interest, he may appoint a committee to investigate and report. He may then suspend the onerous provisions for a period not exceeding 6 months. The report (of the committee) and the recommendation of the Marketing Council must be tabled in both Houses of Parliament. At the request of both Houses the Governor-General may by proclamation revoke or amend any scheme or repeal any amending proclamation.

Decisions of Marketing Council and Regulatory Boards. — Decisions by any regulatory board to prohibit producers to sell except to or through the board or its agencies, or to prohibit the sale of certain classes or grades or quantities, or to prohibit sales at certain prices, must be submitted by the board to the Marketing Council and through the latter to the Minister.

MISCELLANEOUS PROVISIONS.

Loan Funds. — An agricultural marketing fund is established by Parliamentary appropriations, out of which the Minister may make loans to boards on the recommendation of the Marketing Council.

Imports and Exports. — The Governor-General is empowered to control the import or export of any regulated product.

National Mark. — The Governor-General is also empowered to prescribe a national mark for any product, which may then be used only with the written permission of the Minister. Provision is made for an inspection service under the national mark.

Notification of Decisions. — All proclamations made by the Minister, the National Marketing Council and the Governor-General and all the important provisions (etc.) relating to the initiation, operation or amendment of schemes must be published in the *Government Gazette*.

NEW SCHEMES SUBMITTED UNDER THE MARKETING ACT.

The Minister of Agriculture provisionally approved of schemes dealing with dairy products, maize, tobacco, and dried fruit, submitted under the new Marketing Act (1).

Dairy Produce. — The scheme for dairy products is wide in scope and embraces all forms of dairy products including fresh milk and cream (2). It is to be administered by a Dairy Industry Control Board similar to that at present existing, but with 6 additional members respectively representing fresh-milk producers, fresh-milk distributors, fresh-milk producer-distributors, farm cheesemakers, condensing-milk producers, condensed-milk and milk-powder manufacturers; and the chairman, instead of being appointed by the Governor-General, is to be elected by the members.

Provision is made in the scheme for the imposition of levies and the registration of all producers (3). Prices are to be fixed and sales regulated by agents to be appointed by the Board.

Maize. — This scheme provides for regulation of the trade in maize "through clearly defined and controlled channels". Only persons authorised by the board would be permitted to trade in maize or maize products. Control is to start at the point of production, and producers would be authorised to sell, by permit, only to persons approved by the Board. Provision is made for complete control of the export trade, the aim being "the speedy and continuous removal of the surplus at the beginning of every season until such time as, in the opinion of the Board, the safety margin has been reached". Ordinary trade channels will be employed in all cases as far as possible but the Board will be empowered to purchase maize for sale to farmers and manufacturers, as well as for the purpose of creating new channels of consumption, providing a Government fodder-reserve, or protecting internal prices.

The initial price for the season's maize would be based on ruling market values, and would be supplemented later in the season. Supplementary payments would be determined on a sliding scale according to the quantity produced by the individual grower, a "normal" being determined in advance for each season (4).

The existing levy on processed grain is to be retained, and in addition a levy would be imposed on every bag of maize handled by traders for internal sale. The new levy will be a flexible one, and will be employed for the purpose of stabilising internal prices.

Here also the existing Board is to be retained, the representation of producers and the total membership being increased.

Tobacco. — The Tobacco Industry Control Board, established 3 years ago, is to be enlarged under this scheme and would have its hitherto limited powers extended to permit complete domination of all transactions in leaf tobacco. Minimum prices will be imposed and sale allowed only through specified channels (5).

(1) These schemes are published in special issues of the *Government Gazette*, 25 January 1938.

(2) Application of the scheme to cream is confined only to the large municipal areas.

(3) Except those concerned with factory cream, cheese milk, and condensing milk.

(4) This provision fulfils the desire of small producers for protection against the large producers, who, it is complained, get most of the benefit of the controlled market.

(5) Recently more than 90 per cent. of the tobacco crop has been marketed through cooperative channels.

Through its price policy the Board would also exercise a certain measure of control over production, in order to discourage the growing of inferior grades and undesirable types. Levies on home grown tobacco will continue to be collected from traders; those on foreign tobacco from importers. Export will be encouraged by a system of bounties.

Dried Fruits. — This scheme is the simplest of the four. A levy is to be imposed on all dried fruit, and the Board is also empowered to raise loans. Destination of export is controlled and an additional levy may be imposed for equalising export returns. Both dealers and producers must be registered.

Regulation of Exports or Imports of Agricultural Products.

Wheat and flour. — In view of a threatened and actual rise in the price of bread during the first four weeks of 1938 the Government decided to authorise the import of wheat and flour.

Maize. — The export of maize was prohibited for the period from 15 December 1937 to 31 May 1938 (see general section on maize on pages 254-55).

Butter. — The Dairy Industry Control Board decided in February 1938 not to export any butter from South Africa. Since April 1937, when the Board made its last export determination, considerable quantities of butter were supplied for consumption within the Union under the subsidised milk and butter scheme. Much of this butter was supplied at export parity prices and accordingly ranked as export butter.

Butter shortages were reported from several large towns towards the end of 1937. Rationing of consumers was inaugurated. As a result of the shortage, imports of butter were sanctioned (1). A subsequent and substantial increase of production necessitated the export of 2,000,000 lb. of butter by 12 March 1938.

Livestock. — Imports of live cattle, sheep, goats and pigs from Europe, the United Kingdom and Ireland were prohibited by a proclamation of 3 December 1937, in connection with outbreaks of foot and mouth disease in those parts of the world.

II. — MEASURES AFFECTING AGRICULTURAL ECONOMY IN GENERAL

Improvement of Stock.

HORSES.

In order to assist farmers to breed suitable draught animals, the Department of Agriculture has stallions (Percherons) standing at stud at all Schools of Agriculture, to which farmers may send their mares for service, at very reasonable rates. During the financial year 1937-38, the Government earmarked £6,000 under this scheme, of which £2,000 is for importation of suitable types of stallions, and the remainder for importing Catalanian donkeys for the breeding of mules (hinneys).

(1) See *Farmer's Weekly*, 15 September 1937, and subsequent numbers.

CATTLE.

Payment of Subsidies on Bulls. — In order to promote the cattle-improvement scheme initiated under the important Livestock and Meat Industries Act (1934), and particularly to enable poorer farmers to participate, the bull-subsidies scheme was inaugurated by the Government a few years ago.

At the commencement, the subsidy was based on 50 per cent. of the purchase price with a maximum of £12.10.0 per bull. It soon appeared that this system lent itself to speculation and the forcing-up of bull prices, so that the subsidy is now based on the value placed on the bull at the time of inspection.

The conditions governing the payments of subsidies on bulls effective since 1936 (1), have been changed with effect from April 1938.

A subsidy may be paid to the purchaser of any approved bull over 12 months of age, bred in the Union of South Africa, and purchased for breeding purposes within cattle improvement areas (2). Subsidies are not to exceed £12.10.0 per bull. The total amount payable to any one purchaser or group of purchasers is not to exceed £25 (3). No bull on which a subsidy has been paid may be disposed of within three years from the date of application for the subsidy, except with permission of the Secretary of Agriculture.

From the date of inauguration of the scheme up to 31 August 1937, £138,000 had been paid out in respect of 15,590 bulls, or an average of £8.17.6 per bull.

(1) See *Farming in South Africa*, October 1936.

(2) *i. e.* in areas proclaimed under Section 24 of Act No. 48 of 1934.

(3) This provision comes into operation on a date to be published in the *Government Gazette*.

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MONTHLY BULLETIN

OF

AGRICULTURAL ECONOMICS AND SOCIOLOGY

1938

No. 6

STUDIES IN THE DEVELOPMENT OF INTERNATIONAL TRADE IN AGRICULTURAL PRODUCTS

The Recent Evolution of Agricultural Exports of the United States.
(continued).

The Period of "Agricultural Adjustment".

If it is true that in the period 1930-32 the course of American agricultural export was governed as much by events in the world outside the United States, as by events within the United States; it is equally true that in the succeeding period it was governed essentially by the policies and circumstances within the United States. To some it may seem strange that this should be the case, for, during the years succeeding 1932 events in the outside world began to show a reversal of the trend which had been general until then. In fact 1933 was the first whole year in which there were unmistakeable signs of a process of economic recovery throughout the world, both outside and within the United States. Surely it might be argued, such an important and widespread change could not fail to have as appreciable affect—in the opposite direction—on the United States export trade as had had the world depression. It was, however, precisely this world recovery which provides the evidence that the United States agricultural export trade no longer reflected world conditions—for during the period of recovery that trade, instead of showing a similar improvement, declined, as we shall see below, still further and at an accelerated pace. Here indeed lies one of the important differences between the latest great fluctuation of the world economy and those preceding it. In this last fluctuation recovery was fairly general and common to most countries. But it proceeded in each country or group of countries more or less independently and reflected far more the particular circumstances of each country or group than the circumstances which were common to them all and which linked them together. For that reason it was one of the striking features of the world recovery that international trade failed to improve to the same degree as total world production.

It was undoubtedly with a full consciousness that a possible world recovery need not of itself bring about a substantial improvement of the situation of the American farmer that the new American Government in 1933 adopted a series of measures to affect that recovery which in their nature implied a neglect if not the sacrifice of the export market. In his inaugural speech the President of the United States declared that "our international trade relationships though vastly important are, in point of time and necessity, secondary to the establishment of sound national economy", a clear indication that recovery must proceed along lines independent of world economy.

The major measure which was to put into effect this guiding principle as far as agriculture was concerned was the Agricultural Adjustment Act. But together with the whole programme of internal adjustment of which the Act was part, another measure was adopted to "insulate" the American economy from the rest of the world, namely, the abandonment of the gold standard followed by the deliberate depreciation of the dollar—deliberate, for it was not, as in other countries, the result of trade or budget disequilibrium and diminishing gold stocks, but an instrument of policy. These two measures were, if complementary (for their main purpose was to raise internal prices) also in a certain sense contradictory. For whereas depreciation would tend to strengthen America's competitive power on the world market the price-raising policy of the Agricultural Adjustment Act must weaken it still further.

That depreciation did not compensate for price raising was due both to the diminution of American production—the method of the A. A. A.—and to the fact that price competition was, in the highly protected world of 1933 and subsequent years, much less effective than previously.

The declared purpose of the Agricultural Adjustment Act was to bring agricultural prices back to the pre-war level. The effort that this policy would require is easily appreciated when it is recalled that in 1932 the index of farm prices (base 1909-1914) stood at 65 whilst the index of the prices of goods bought by the farmer (base 1910-1914) stood at 107. To achieve this purpose the Act envisaged the reduction of production. The methods actually adopted as the scheme developed naturally varied from product to product and according to the characteristics of the market, but broadly speaking they consisted of making payments to producers for reducing the acreage under cultivation. The State further intervened by purchasing large quantities of farm products and distributing them to unemployed and needy persons. As time went on the first measures were modified and supplemented by other Acts such as the Bankhead Cotton Act which made production control more effective by fixing quotas, and the Kerr-Smith Tobacco Act.

The intervention of the State was most effective in reducing the production of cotton and tobacco (1) whilst in the case of wheat and pigs the efforts of the State were reinforced to an unexpected degree by nature. In the case of cotton,

(1) Agricultural Adjustment 1933 to 1933 United States Department of Agriculture. Agricultural Adjustment Administration. Washington 1936. p. 12.

the control programme became effective in 1933, when a large proportion of the growing crop was ploughed in.

In the following years large areas were actually withdrawn from cotton cultivation. In 1933 the acreage taken out of production amounted to 10.5 million acres, or over one quarter of the acreage sown. In 1934 and 1935 14.6 and 14 million acres were retired. On the basis of the yields of those years these withdrawals represented an elimination of 4.5, 5.2 and 5.5 million bales. Actually both the acreage harvested and production diminished less than these figures would suggest, since not all farmers complied strictly with the programme, whilst some did not contract to reduce their acreage. Nevertheless the acreage harvested was some 8.5 million acres less in 1935 than in 1932 whilst production equalled 13.0 million bales in the season 1932-33 and 1933-34 and 9.6 million in 1934-35 compared with 17.1 million in the bumper year 1931-32 and an average of 14.8 million in the preceding five years. This reduction in production would not have been sufficient, however, to maintain the level of prices actually reached during the years of the programme, if the stocks which had accumulated to 9.7 million bales by July 1932 had been freely sold. In fact however these were held back and by 1935 were still at the abnormally high level 7.2 million bales.

In 1933 the tobacco crop was already well advanced when the Agricultural Adjustment Act was passed, and in that year action was limited to the collective marketing of the crop at higher prices. In 1934 and in 1935, 697,000 and 430,000 acres respectively were withdrawn from tobacco production under the adjustment schemes. The acreage harvested fell however from 1.7 million acres in 1933 to 1.3 million in 1934 and 1.4 in 1935, and production, in spite of substantially heavier yields amounted to 1.08 billion lbs. in 1934 and 1.3 billion in 1935 compared with 1.58 billion on the average of the three years 1929-1931.

The determination of the State to secure the adjustment of supplies was just as great as regards wheat and other staple crops as in the case of cotton and tobacco. Owing, however, to drought in 1933 and particularly in 1934, the actual schemes that were put through were less important than natural conditions in reducing supplies. For this reason it is true to say that it is impossible to judge how far the various legislative measures were responsible for the reduction of production. But equally it must be born in mind that if nature had not intervened in this forcible manner to assist in reducing supplies, then the reduction programmes themselves would probably have been made more vigorous. As the report cited above states, "During this period (1933-34) the United States experienced one of the worst droughts in its history".

Provisions of the wheat programme were modified greatly to meet or alleviate drought conditions. Much of the reduction in the surplus therefore may be accounted for by the drought, although if weather conditions had been normal a larger reduction in acreage would have been provided for by the programme.

In 1933 the wheat crop was already approaching maturity at the time the Agricultural Adjustment Act was passed. It was seen too that drought was reducing production considerably, and in consequence no reduction in acreage

was planned. Drought alone caused however the abandonment of 29 per cent. of the acreage sown, and production fell to 557 million bushels, compared with an average in the previous five years 1925-29 of 823 million.

This year's crop was actually 100 million bushels below the normal domestic requirements of the United States. In consequence, the carry-over was reduced accordingly. In 1934 the programme adopted provided for a reduction of 15 per cent. of the base acreage of farmers co-operating in the programme, whose land represented some 78 per cent. of the total. Once again drought intervened and more severely, and only 43 million acres of the 63 million sown were harvested. The crop fell to only 526 million bushels, the smallest since 1896. The 1934 wheat crop was 338 million bushels less than the average for the base period (1928-32). It is estimated by the A. A. A. that about 50 millions of this reduction were due to the wheat programme and the remainder to the drought. For 1935 a reduction of 10 per cent. of the base acreage was planned, but now nature intervened in the form of dust storms and drought in the winter—which led to an upward modification of the programmes—and a severe outbreak of black stem rust in the spring-wheat area which in July reduced the prospective crop by more than 100 million bushels. Once again the crop was lower than normal domestic requirements falling to 626 million bushels.

The adjustment schemes affecting pigs was combined, as was natural, with those affecting the principal feed, maize. Three programmes were put into effect during the three years, 1933-35, (a), the emergency hogbuying programme and the supplemental purchase programme in 1933; (b) the corn-hog adjustment programme of 1934 and (c) the corn-hog adjustment programme of 1935.

In 1933 over 6 million pigs of various shapes and sizes were purchased by the government, slaughtered, and distributed as meat to the needy. The 1934 programme was designed to reduce the production of pigs for marketing and the feed supplies by some 25 per cent. The drought of 1934 however, which threatened to reduce feed well below these levels, caused modifications to be made in the control schemes and measures were now adopted to prevent an excessive reduction of feed. Nevertheless the corn crop fell to 1,146 million bushels, and the number of hogs was forcibly reduced to a greater extent than provided for in the programmes. On 1 January 1935 the number of hogs on farms amounted to 39 millions compared with 58.6 and 62.1 millions in the preceding two years. Under the 1935 programme nearly 12 million acres were kept from corn production, but yields were almost normal, the total crop being 2,005 million bushels. The adjustment programme is estimated to have reduced the crop by some 250 million bushels. On 1 January 1931 the number of pigs had recovered slightly to 42.5 millions.

The above is an all too brief summary of the principal changes in the production situation of the leading commodities in the American agricultural export trade during the first three years of the "Roosevelt Experiment", conducted under conditions which more or less "insulated" America from the influences of the world economy. As is well known, the effects on American agricultural exports were very marked, for the new situation implied, as regards agricultural

exports, a growing disparity between American prices and "world" prices and a diminution in supplies and quantities available for exports. In consequence, American agricultural exports contracted severely both in terms of absolute volume and in relation to those of other major exporting countries.

The most typical effects of the changes in the export situation were perhaps those on America's position as a cotton exporter. The policy of reducing production resulted in raising American cotton prices beyond the level that they would have reached, even though the world was recovering from the depths of the depression. In 1934-35 dollar prices of Middling averaged almost twice as high as in 1931-32 (1). At the same time, in spite of the depreciation of the dollar, and rising world prices, American cotton prices continued to rise in comparison with the other main "outside growths". In 1932, the price of Indian cotton in London represented 92.6 per cent. of that of Middling, whilst that of Egyptian represented 138. In 1934 the price of Indian represented 75.4 per cent. and that of Egyptian, 129 (2). This factor, together with the diminution of American supplies resulted in increasing supplies and consumption of "outside growths". Whereas between 1932-33 and 1935-36 the consumption of American cotton in the world (including U. S. A.) fell from 14,385,000 to 12,539,000 bales that of "outside growths" rose from 10,256,000 to 15,190,000 (3), American exports fell from 8.77 million bales in 1932-33 and 9.08 million in 1931-32 to 4.93 million in 1934-35 and 6.10 million in 1935-36.

In the case of tobacco, some particular characteristics of which we have noticed, exports from the United States reached in 1934 the lowest level since 1917, falling to 374 million lbs., compared with 571 million in 1930 and 600 millions in 1929.

The most striking of all changes in the situation of American agricultural exports was of course the almost complete disappearance of the United States exports from the world wheat market, a change which is to be attributed to the low harvests of the whole period, which, as we have seen, were desired by the Government but which were effected by nature. The big slump began in 1932, when exports fell to 41 million bushels. In the following three seasons they fell still further—to 37.21 and 16 millions respectively—whilst as a result of the 1934 drought imports actually rose to a figure exceeding exports. It is clear that the complete transformation of the situation can only be attributed to circumstances of a fortuitous character—the question of what would have been the case if there had been no drought and if only Governmental policy had been the main influence, cannot be answered, particularly since this policy had to some degree to be abandoned when natural conditions returned to "normal".

As regards pig products, exports recovered in 1933 partly as a result of the increased slaughterings and in spite of the intensification of quotas. By 1935,

(1) M. TCHERKINSKY. *Present Tendencies on the World Cotton Market. Monthly Bulletin of Agricultural Economics and Sociology*. November 1937, p. 367.

(2) *Ibid*, p. 369.

(3) *Ibid*, p. 371

however, the huge decrease in stock numbers reduced abruptly the quantities exported. In 1932 the volume of meat and lard exported equalled 3 million quintals. In 1933 it rose to 3.28 millions, to fall however to 2.65 millions in 1934 and to only 796,000 quintals in 1935.

The following table enables one to see at a glance the great change in American agricultural exports during these three years.

Annual Index-numbers of Volume of Agricultural Products Exported.

(1909-10 to 1913-14 = 100).

Year ended June 30	1932	1933	1934	1935	1936
All commodities	98	85	83	54	62
All commodities except cotton	91	64	65	46	43
Cotton, including lint	103	100	95	60	76
Raw tobacco	110	102	120	95	110
Fruits	305	255	248	197	276
Wheat, including flour	126	39	35	21	15
Grains and grain products	104	42	34	21	19
Pork	27	26	28	22	15
Lard	115	118	115	48	19

The table confirms that by 1935, these exports, as regards their volume, reached a very low level indeed. The position as regards the value of agricultural exports is shown by the following figures:—

Exports of Agricultural Produce.

(in millions of dollars).

Year ended June 30th	1929	1932	1933	1934	1935	1936
Total agricultural exports	1,847	752	590	787	669	766
Cotton (unmanufactured)	868	339	324	442	334	399
Fruits and preparations	149	92	66	78	71	95
Tobacco (unmanufactured)	148	86	63	99	121	141
Grains and flours	322	99	37	38	29	26
Feeds and fodders	34	16	7	10	5	7
Pork and lard	161	54	44	51	39	26

It will be seen that in 1933-34 the total value of agricultural exports fell to 590 million dollars, or less than one third of their value in 1929. In the following years, despite the depreciation of the dollar and the rise in prices, the total value was well below half their value in 1929.

During these years American agriculture as a whole, in spite of the losses of individual farmers due to drought, undoubtedly recovered from the state of

grave crisis into which it had fallen in 1932. Though not all surplus stocks had been eliminated, the farmers' position was substantially improved by higher prices, which more than compensated for the diminution in production, and by the substantial benefit and rental payments granted under the various adjustment programmes. But it is the characteristic of this period that the improvement was not associated with a proportional improvement in exports. Whereas the gross farm income from farm production rose from the low level of 5,337 million dollars in 1932 to 8,010 million dollars in 1935, excluding rental and benefit payments, or to 8,508 million including those payments, the value of exports, as we have seen from the last table were, in 1934-35, still lower, and in 1935-36 only slightly higher, than in 1931-32.

Our principal conclusion with regard to this period, namely, that in this period American agricultural exports were governed mainly by the policies and circumstances within the United States, and that the recovery of American agriculture was directed along the lines which involved the neglect of the export trade, seems, in the light of the available evidence, to be justified. We may now turn to consider the main features of the development of the situation of American exports in the last two years.

The American Agricultural Export Situation since 1935.

The two years 1936 and 1937 saw the process of general world economic recovery rise to perhaps its highest point. World industrial and agricultural production and consumption reached a substantially higher level than in 1929, whilst world trade, though it had not by 1936 recovered to the 1929 level, nevertheless improved considerably compared with the depths of the depression in 1932. In this recovery most countries, including the United States, took part. This period in the United States reflected too, in the realm of policy, not only the substantial degree of improvement in internal conditions, but also the recognition of the fact that a thorough and sound recovery still depended to some degree on the recovery of American exports. At the beginning of 1936 changes in the direction of agricultural policy were actually enforced by the Supreme Court declaring the production control clauses of the Agricultural Adjustment Act to be unconstitutional. In all probability however this change in the direction of policy would have occurred in any case, in view of the fact that agricultural surpluses were already substantially reduced, and, except in the case of cotton, no longer constituted a serious burden on the market. The new policy of the Soil Conservation Act tending to encourage the substitution of soil-conserving for soil-depleting crops, though it gave some possibility of production control, was not such a powerful instrument for reducing production as the A. A. A. In the field of trade the policy which was followed in the two years 1936 and 1937 had already been initiated in 1934, when the Trade Reciprocity Act, empowering the President to make commercial agreements embodying reciprocal tariff concessions, was passed. Of the agreements made under this Act up to the end of 1937 one became effective in 1934, three in 1935, ten in 1936 and two in 1937. Their effect could only therefore become visible in

the period succeeding the abandonment of the A. A. A. These agreements were of importance for American agriculture, since the concessions obtained by the United States were to a large degree on agricultural exports.

If these three influences—the world recovery, relaxation of production control, the new trade policy—all favourable to exports, had been the principal new factors in these two years, it might have been possible to calculate with some precision to what degree the events of the preceding five or six years had changed America's position in the world as an agricultural exporter. Once more, however, nature obscured the view of the situation, for drought and dust storms once more destroyed crops over huge areas and grain harvests were, in 1936, again abnormally low, whilst in the present, 1937-38, cotton-growing season, conditions have been such that cotton yields and production have reached record levels.

The area sown for the 1936 winter and spring wheat crops was larger by over 4 million acres than in the preceding years, but the total acreage actually harvested fell by some two million acres. Whereas the winter crop rose the spring crop failed over large areas, and in consequence the total crop was only equal to that of 1935, being of 626 million bushels, and still much below the crops of the years preceding 1933. In 1937 the area harvested rose by over 16 million acres and the total crop rose to 872 million bushels, an end thus being put to the long series of low crops which had so transformed America's position on the world market. In 1936, as in the preceding years, the United States remained a net importer of wheat. In 1937, however, she again began to export, her reappearance on the world market undoubtedly being facilitated by a big decline in exports from Canada and the Argentine.

The acreage from which cotton was harvested increased by somewhat less than 3 million acres in 1936 and by about 4 million in 1937. In 1937 the acreage harvested amounted to 33.9 millions acres (1) which was still considerably below the average acreage harvested in the years 1925-29 (42.6 million acres). The 1936-37 yield per acre rose somewhat and the total crop increased by some 2 million bales compared with the preceding year. Nevertheless production was still nearly 3 million bales less than the average of 1925-29. In this present season yields however have increased enormously, reaching the almost astonishing level of 258.8 lbs. per acre, which, in combination with the increase in acreage, has resulted in production reaching nearly 19 million bales—the highest production ever recorded in the United States. What this reversal to high production on the part of the United States means for the world market will be seen in the course of the present season. But it is to be regarded as certain that the years of reduced cotton production in America will still influence the situation considerably, for during those years the world had become to some degree accustomed to a low American production and had sought adjustment to it by increasing production elsewhere. Between 1931-32 and 1936-37, whereas American production fell by some 4.5 million bales, the production of

(1) *Monthly Bulletin of Statistics*. International Institute of Agriculture. January 1938, p. 41.

outside growths increased by some 8 million bales, and the process of increase has continued into the present season, since such a phenomenal and sudden expansion of American production could not be foreseen. In fact the production of outside growth has increased again and exceeds that of American cotton. It is yet to be seen therefore whether the return of the United States to the position of an uncontrolled producer implies that the United States will regain its place as an exporter. This undoubtedly will depend very much on the price policy which will be adopted.

The restoration of production has also proceeded in the case of tobacco, in 1937 the acreage harvested rising to 1.7 million acres and the crop increasing to 1,505 million lbs. almost equal to the average crop of the years 1929-1931.

As regards the former fourth large agricultural export, the heavy losses in the pig population of the United States have not yet been recovered. It is not expected that the 1929-1933 average will be reached before 1940. The present process of restocking involves a period of further diminished slaughtering.

In 1937, according to the "Monthly Crop Report and Agricultural Statistics" imports of pig products have exceeded exports for the first time.

Up to the commercial year 1936-37 the value of agricultural exports has not shown any substantial recovery, in fact it fell to 733 million dollars compared with 766 million dollars in 1935-36 and 752 millions in 1931-32. As far as the present year is concerned, the indications are that in spite of somewhat lower prices the value of exports may increase appreciably, though it cannot be expected to reach the level of the years preceding the crisis. When they will do this, if at all, will depend on a number of factors which we may conveniently indicate in the concluding section.

Summary and Conclusion.

In the preceding sections we have seen that the United States, whose agricultural exports played an important rôle in its economy, was faced in the first years of the world crisis with the problem of adjustment to a declining world market. Two possibilities were theoretically open—either to let prices sink to the limit dictated by market conditions, or to endeavour to oppose this by some form of collective action. For various reasons the first policy was considered impracticable, and in the years 1929 until the beginning of 1933 an endeavour was made to prevent an excessive decline in prices without however imposing an adjustment of production. This policy failed, since production was maintained at higher levels than ever whilst prices continued to fall. In consequence surplus stocks which could not be disposed of on the world market, except at ruinous prices, increased enormously and the position became threatening both economically and socially. To remedy this situation it was then sought, by means of the adjustment programmes, to reduce production to levels which would enable prices to be raised and stocks reduced. This policy, aided substantially by nature, partially succeeded, and was continued till the beginning of 1936, since when production has begun to climb back to the higher levels

of the years preceding 1932. The effect of this adjustment on the export trade was to reduce to a very substantial degree its volume and value in a period in which the world market as a whole was expanding, a fact which, it is recognised in America as elsewhere, may seriously prejudice the achievement of recovery of the economic position of the American farmer on a sound and durable basis. Now that production is recovering, it is consequently important to determine whether the export trade is likely to recover to a similar degree or whether, should it fail to do so, the old problem of the surplus will return.

The factors which will determine the answer to this question are of both an internal and external character. So far as foodstuffs are concerned, the growing population of the United States is likely to absorb ever increasing proportions of domestic production, whilst the desire of many important European countries to secure the maximum independence of foreign sources of food supplies—a desire which seems to be more than transitory—is a factor tending to limit the market of the United States as of other overseas exporters. Though this factor in theory should affect the United States no more than its competitors, the different line of policy pursued by the United States has probably resulted in placing the United States at a relative disadvantage, both as regards foodstuffs and cotton. For whereas such countries as Australia and the Argentine sought to adjust costs to falling prices, the United States adjustment plans aimed at raising prices to such a height as would enable costs to be covered. For this reason it may be doubted whether, in the event of surpluses accumulating in the United States, that country will be more willing to dispose of them at low prices than she was throughout the depression.

A. EMANUEL.

AGRARIAN ORGANISATION IN PORTUGAL

SUMMARY: Total population and rural population — Proportion of cultivable lands — Landed property — Division of landed property — Value of land — Agricultural mortgage indebtedness — System of land tenure.

The data contained in the extracts from the Inquérito Económico-Agrícola (1) directed by Professor Lima Basto, should be of interest here. This documentation completes the pages on Portugal in the International Chronicle of Agriculture.

Total Population and Rural Population.

According to the last census of 31 December 1930, Portugal contains 6,825,883 inhabitants (6,360,347 on the mainland and 465,536 on the islands); these figures represent a density of 74.4 inhabitants per square kilometre.

(1) *Inquérito Económico-Agrícola*. 4º Vol. Alguns aspectos económicos da Agricultura em Portugal. Universidade técnica de Lisboa 1936.

The proportion of the rural to the total population gives an idea of the importance of agriculture to Portugal:

Districts	Rural population as percentage of the total
Viana do Castello	61.6
Braga	59.9
Porto	27.2
Vila real	65.3
Braganza	63.2
Aveiro	47.2
Coimbra	51.0
Viseo	63.7
Guarda	52.7
Castello Branco	52.8
Leiria	53.0
Santarem	59.4
Lisboa	17.3
Setubal	43.1
Portalegre	60.6
Evora	62.6
Beja	60.8
Faro	47.9

Only in five districts the population which lives on agriculture is less than half of the total population; two of them (Lisbon and Porto) are urban districts and in the other three the percentage is very close to 50.

Proportion of Cultivable Lands.

The *Statistical Annual of Portugal* estimates the cultivable area at 8,905,994 hectares (islands excluded); however, as this figure includes the estuaries of Tage and Sedo (26,100 and 540 hectares respectively) it should be reduced to 8,868,354 hectares (1).

In order to picture the evolution of the cultivated area the figures of 1874, 1902 and 1934 are compared.

Area	1874	1902 (hectares)	1934
Productive area (comprising cultivated, agricultural and forest lands and territories not cultivated but productive)	4,598,488	6,993,540	7,207,000
Uncultivated area suitable for cultivation	3,929,212	1,534,160	1,320,700
Area completely unproductive	340,654	340,654	340,654
	<u>8,868,654</u>	<u>8,868,654</u>	<u>8,868,654</u>

(1) This figure is used for calculations in the inquiry directed by M. Lima BASTOS, an engineer agronomist and also adopted by the Geographical and Land Survey Register Institute.

This table shows very clearly the progress of soil utilisation realised during 60 years, a progress much more marked during the first thirty years than later.

In fact the productive area, which represented only 51.9 per cent. of the total area of the country increased, to 78.9 per cent. in 1902 and to 81.3 per cent. in 1934.

Landed Property.

In Portugal, as in almost all countries, the classification of agricultural holdings into small, medium and large, according to their area, does not give an exact idea of their real importance. Such denominations do not correspond to any precise standard and vary essentially with the regions. Other factors have been suggested for classification of holdings without taking into account their area:—

A *large holding* is one which permits its proprietor to occupy a high social position without personally operating his estate.

A *medium holding* is one which insures to its proprietor a comfortable life; he might operate his estate personally but does not draw wages.

A *small holding* gives a revenue sufficient to cover the greater part of the needs of the proprietor, who, however, draws wages which represent an important item of income.

Some figures relating to the distribution of property in Portugal are given below, but it should be noted at the same time that a distinction is made between proprietorship and operation. The former implies the distribution of land, while the latter refers to the conception of agricultural production.

Owing to the lack of a register of the survey of lands regularly kept up-to-date, the agricultural inquiry effected in Portugal in 1936, under the direction of M. LIMA BASTOS, with the view of establishing the distribution of landed property, adopted as a basis the taxes on land paid during the financial year 1931-1932; some small differences due to documentation should be noted but they do not detract interest from the results obtained and give a picture conforming with reality. According to the data supplied by the Internal Revenue authorities there exist in Portugal 11,109,811 holdings. The number of proprietors subject to land tax as well as the number of holdings and their average size in various districts is given in the table below.

The general averages for continental Portugal are 15.7, 31.5 and 0.8 respectively; for the islands—123, 184 and 0.5. These figures permit some observations to be made concerning the distribution of landed property:

The large number of holdings per square kilometer, in almost every district, shows a clear predominance of small holdings; in three districts only the large holdings occupy an important place.

In consequence of the prevalence of small holdings their area is generally very small.

As the number of holdings in the whole country is very much greater than the number of proprietors, it does not necessarily follow that a small or medium holding belongs to a small or medium proprietor; this is equivalent to stating

	Number of tax-payers per square kilometer	Number of holdings per square kilometer	Average area of holdings in hectares
<i>Continental Portugal:</i>			
Aveiro	37.0	349	0.3
Viana do Castelo	36.1	368	0.3
Coimbra	30.0	317	0.3
Leira	28.1	264	0.4
Viseu	26.4	325	0.3
Braga	25.5	211	0.5
Porto	24.4	190	0.5
Lisboa	20.0	75	1.3
Guarda	17.6	127	0.8
Vila-Real	16.9	197	0.5
Paro	13.0	55	1.8
Santarem	12.5	69	1.4
Braganza	9.5	171	0.5
Castello Branco	8.9	87	1.1
Portalegre	3.5	11	9.0
Setubal	3.1	5	19.5
Beja	2.5	8	12.0
Evora	1.9	5	18.2
<i>Neighbouring Islands:</i>			
Funchal	43.0	257	0.3
Ponta Delgada	30.0	97	1.0
Angra	29.5	185	0.5
Horta	21.2	203	0.4

that in a system of land tenure in which subdivided properties predominate, the possession of several parcels by the same individual justly entitles him to be considered a large proprietor.

Distribution of Landed Property.

The figures obtained by inquiries effected in certain agricultural regions with a view to ascertaining the distribution of property permit the following observations to be made.

The classification of holdings according to their size varies greatly with the regions. In the Alentejo province, which comprises two very important agricultural regions, Cuba and San Ildefonso, holdings are classified according to their size; on the one hand in Cuba a holding less than 10 hectares in area is considered very small, from 10 to 30 hectares small; from 30 to 50 medium; from 150 to 1,000 large; and if more than 1,000 hectares very large. On the other hand in San Ildefonso, lands used for cereal cultivation are classified as small when they do not exceed 40 hectares, as medium when they are more than 40 and less than 80, and as large when they exceed 80. In the same region lands under olive groves are divided into three categories: 1 hectare, from 1 to 4 hectares and more than 4 hectares.

In San Tirso commune, which belongs to the wine-producing district of Porto (Minho province), a holding of 4 hectares is considered a small property, a holding from 4 to 14 hectares, medium, and when exceeding 14 hectares, large.

As regards the number of proprietors in each category, the inquiry brought to light a series of curious facts.

In the commune of Cuba, 765 small and very small proprietors possess only 1,682 hectares out of 11,166 hectares of cultivable land existing in the commune; while eleven large or very large proprietors, possess 8,807 hectares. In other words, 93 per cent. of the proprietors who are small, hold 16 per cent. of the arable land, while 3 per cent. who are large, own 85 per cent.

The situation in San Ildefonso is similar: 10 small holders own 504 hectares, 6 medium own 674 hectares while the remaining 4,480 hectares available in the commune are in the possession of 20 large proprietors. In other words the small owners, who represent 80.5 per cent. of the total have 12 per cent. of the land, the medium owners constituting 4.5 per cent. have 9 per cent. and the large owners who represent only 15 per cent. possess the remainder of the land *i. e.* 79 per cent.

In the San Tirso commune the situation is quite different: small owners represent 82 of the total and hold 75 per cent. of the land, the medium represent 15 per cent. with 15 per cent. of the land and the large constituting 3 per cent. own 10 per cent. of the land.

Thus it is only in San Tirso that the ideal arrangement has been realised, *viz.* the land belonging those who cultivate it; in the other communes examined, Cuba and San Ildefonso, the increasing number of small holdings and the insufficiency of their size do not permit of the establishment of a peasant class of independent proprietors; small proprietors are obliged to rent parcels from large estates.

Value of Land.

The value of land, for lease or for purchase, varies also from region to region.

In some communes of the Minho province the purchasable value of land is quite high: best irrigated lands command ordinarily from 25 to 30 contos (1) per hectare, good non-irrigated lands cost 10 contos per hectare and fallow lands command up to 5 contos per hectares.

The leasable value is from 1.2 to 1.3 contos per hectare of irrigated and 8 contos for non irrigated land. The leasable value represents a rate of capitalisation varying from 4.5 to 6.5 per cent. for non-irrigated lands and oscillates around 8 per cent. for irrigated areas.

In the Beira province, the study of the non-mountainous region which includes very fertile areas has given the following results: the leasable value

(1) A conto is 100 escudos. The official quotation in Paris for June 1938 is 1 escudo = 1.617 franc.

is high and varies from 10 to 20 contos per hectare of irrigated land according to its fertility, the quantity of water available for irrigation, proximity to markets and other factors; this leasable value increases in inverse proportion to the size of the parcel: this fact is explained by the shortage of land. The leasable value of non-irrigated land in this region is very much lower and varies from 0.4 to 4 contos per hectare.

The purchase value of irrigated land is proportionately higher than its leasable value. Transactions are rare in this region: plots for sale are sought after and well paid for. At present the purchase value has declined considerably as compared with the epoque when up to 100 contos were paid for a hectare, for instance in the alluvial region of Zézere; nevertheless in spite of the fall in value a peasant will borrow money regardless of the rate of interest whenever a real estate investment is concerned.

The value of non-irrigated lands in this province oscillates between 8 and 10 contos per hectare.

The rate of interest on capital invested in land varies from 3 to 5 per cent in the case of non-irrigated and from 8 to 10 in the case of irrigated lands.

In the Alentejo province, in the communes already mentioned, the following values are found: in San Ildefonso and in the neighbouring region the purchase value of land devoted to cereals reaches 20 contos per hectare and of land in the mountains 12 contos. The corresponding leasable value reaches 120, 507 and 300 escudos per hectare, representing rates of interest of 6, 4.6 and 6 per cent. on real estate capital.

During recent years, both purchase and rental values of land in the commune of Cuba have greatly decreased. Recent estimates fix the purchase value of land under cereals at 24 contos, olive groves at 30 and vineyards at 54 contos per hectare. The approximate leasable value oscillates according to the case between 2.5 and 4.0 contos per hectare which represents a rate of interest of from 9 per cent. to 11 per cent.

Agricultural Mortgage Indebtedness.

The National Statistical Institute publishes data concerning agricultural mortgage indebtedness which permits a calculation of the total amount. The table below shows the number of mortgaged rural holdings and the amount of debt contracted.

Year	Number of mortgaged holdings	Amount of debt (in contos)
1929 (6 months)	9,581	44,328
1930	21,784	137,072
1931	24,776	179,050
1932	25,054	161,659
1933	19,143	100,056
1934	16,662	102,727
1935	14,752	96,144

The number of mortgaged rural holdings during these years was 131,752; they represent the security on a debt of 8,210,389.89 contos. A simple division will easily show that the average amount of loans is 6,231 escudos; if it is supposed that this debt represents half the value of a mortgaged holding, the value of the latter would be 12,462 escudos.

The following table gives the amounts repaid during the same period:

Year	Number of redeemed holdings	Debts repaid (in contos)
1929 (6 months)	2,305	16,789
1930	9,150	71,406
1931	9,877	125,094
1932	11,973	142,292
1933	10,331	91,355
1934	11,312	78,619
1935	11,527	100,851

A comparison of the two tables shows first of all that the number of redeemed holdings amounts to 66,465 at an average value of 9,362 escudos each; next it should be noted that during 1931 and 1932 repayments increased parallel with loans. However during all the years loans exceed repayments except in 1935 when the proportion between the debts and their amortisation was 105 per cent.

During the six and a half years under consideration (from July 1929 to December 1935) loans rose to 8,210,389.99 contos while repayments reached 6,264,092.60 contos. The latter amount represents approximately 75 per cent. of the former; thus mortgage indebtedness before July 1929 increased by about 25 per cent.

Data of the National Statistical Institute permit also an exact calculation of the duration of mortgages:

Year	Duration			
	1 year	From 1 to 5 years	From 5 to 10 years	Over 10 years
1930-34	9,813	32,525	6,981	11,333
1935	1,364	6,060	1,987	1,980
Total . . .	<u>11,177</u>	<u>38,585</u>	<u>8,968</u>	<u>13,313</u>

Mortgages for a period of from 1 to 5 years represent nearly 54 per cent. of the total; next come those for periods over 10 years (19 %) and last come loans for periods of from 5 to 10 years.

Mortgages to the extent of 87 per cent. are granted by private firms; only 13 per cent. are granted by credit institutions. This explains why the rate of interest is very high and exceeds 10 per cent. in 36 per cent. of the cases.

System of Land Tenure.

The system of land tenure in Portugal does not differ greatly from those in other countries. There is *direct operation* i. e. cultivation directed by the proprietor himself or by an administrator acting on his behalf; and *indirect operation*, i. e. by a third person who rents the land in order to exploit it with his own capital and paying a rent (leasing) or sharing the produce with the proprietor (metayage).

The first method of cultivation has the great advantage of assembling in the same hands all the factors of production: fixed capital, working capital and labour; the property is not sacrificed for the sake of an excessive output, and constant improvements increase the crops and the fertility of the soil.

This method of cultivation is the most customary for small holdings. In the Algarve province the area thus cultivated represents 85 per cent. of the total area; in the Minho province 50 per cent. In the Beira province this method is used only in the case of properties under olives or vines; in the case of other holdings the proprietors find it more practical to receive a fixed rent every year for the lease of their land.

Leasing is the most widespread method of tenure in spite of its defects: in fact it is logical that the farmer seeks to obtain the maximum profit with the minimum expense during the period of the lease, which causes some decrease in the fertility of the soil. The only method of avoiding such impoverishment which consists in extending to the maximum the duration of the lease, and thus putting the tenant in the position of a proprietor, is not applicable in Portugal because the law does not fix any time limit for leases. The contracting parties are only obliged by law to record their contract in the Official Register if it covers a period exceeding one year, and if the lessor receives in advance a part of the rent; if he receives no money in advance, only the contracts exceeding 4 years are registered.

The duration of a contract and the modalities of the payment of rent vary from province to province. In the Alentejo province contracts are written or verbal; their duration varies from a minimum of 3 years to a maximum of 10. The rent is paid almost always in kind. In the Algarbe province contracts are for short periods and at high rents paid in cash: such conditions decrease the fertility of the soil. In the Estremadura province the duration of contracts is from 3 to 5 years in some regions and from 1 to 5 in others; the rent, while specified in cash by the contract is usually paid in kind. In the other provinces similar conditions are found.

In all provinces a clause in the contract stipulates that the farmer will benefit from any land improvements that might be effected during the period of the lease.

Generally speaking both in the regions where large properties prevail and those where small holdings predominate, the conditions of lease contracts have not reached an advanced stage of agricultural evolution.

Metayage is another system of tenure which, although not widespread in Portugal, is generally prevalent in the Beira and Alentejo provinces. This

method consists of a partnership between the proprietor and the farmer: the former allows the latter to cultivate his land and the crops are divided according to rules stipulated in the contract; theoretically this system would have been ideal for Portugal if it were not for the fact that the Portuguese peasant too often lacks the necessary working capital and technical knowledge, and for indifference to the management of the holding on the part of the absentee landlord. A method of tenure peculiar to Portugal known under the name of *foros*, which is a sort of perpetual lease, is now disappearing. It is found only in some regions of the Minho and Alentejo provinces and forms a perpetual contract in which the amount of rent or *foro* is fixed once and for all by the two parties. The lease is inheritable but cannot be divided without the consent of the landlord, who may, in case of division, increase the rent, owing to the inconvenience arising from multiple payments. The farmer or *forero* may dispose of the property as though it were his own, and may mortgage it, providing the amount of the mortgage does not exceed a fifth part of the value of the holding. He has a right to sell it or to give it in payment, but in this case the landlord has the right of preference, which he must exercise within thirty days; the same right of preference is enjoyed by the farmer if the landlord desires to sell his estate.

E. MARTINEZ DE BUJANDA.

INTERNATIONAL CHRONICLE OF AGRICULTURE

GERMANY

In the evolution of the general economic situation in Germany and of German agriculture in particular the same trend is noticeable as was reported in the February issue of this Review. The constant increase in economic activity, apart from seasonal oscillations, is persisting and manifests itself in the number of employed subscribers to the compulsory Health Insurance Institutions, which, from 12,193,000 individuals at the end of March 1933, rose to 16,416,000 at the end of March 1936, 17,497,000 at the end of March 1937 and to 18,828,000 at the end of March 1938. Agriculture was severely hit by the decrease in available labour. On the other hand a rapid increase in the purchasing power of the great mass of consumers caused considerable increase in the importation of agricultural products during the first quarter of 1938.

During the period under consideration no innovation is reported in market regulation, and the various ordinances were limited simply to completing the market and price regulations, or to adapting them to the new conditions of food supply. Therefore there is not much to be said concerning measures relating to markets or prices.

As regards agricultural policy in general, efforts towards increasing production continue to retain the first place. Some measures adopted in this respect are given in section II.

In section III is given a brief outline of the situation resulting from the *Anschluss* as concerns both agriculture in Austria and food supplies in Germany. Also there is given a summary of measures adopted to date to increase Austrian agricultural production.

I. — MEASURES AFFECTING MARKETS AND PRICES.

Regulation of Hop Culture (1).

An order of the Central Office of the German Brewing Industry dated 26 February 1938 provides for the regulation of hop culture in 1938 (2). Under this order the maintenance of areas hitherto reserved for hops and the allotment of new areas for the same purpose is allowed only by authorisation of the Central Office. Plantations in respect of which such authorisation is refused must be immediately destroyed. Such authorisations are not transferable.

Regulations concerning Quality and Marking of Table Poultry.

On 12 May 1938 the Central Egg Office issued a regulation (3) which defines the term "Poultry of German brand" as applied to table poultry raised in the country. Only poultry of a precise nature and quality can be placed on the market under this denomination.

II. — MEASURES AFFECTING AGRICULTURAL ECONOMY IN GENERAL.

Stimulation of Agricultural Production.

Grants of Subsidies for the Purchase of Agricultural Machinery. — For the financial year 1938-39 funds are again allotted in the budget for subsidising the purchase of such agricultural machinery as potato boilers, machines for cleaning and disinfecting seeds; and for establishing ploughing enterprises, for the purchase of tractors by co-operative societies, cooperative use of machinery, extension of existing enterprises for lending machinery, creation of threshing enterprises, purchase of machines for cooperative use for washing beetroot-leaves, and laundry machines. Also under certain conditions (annual use of machinery in an area of at least 50 hectares under cereal cultivation) subsidies of 30 per cent. are granted for the purchase of mechanical seed-sowers.

Subsidies are granted only for the purchase of machines which have been checked and passed by the Reich Food Estate.

Reductions in Prices of Agricultural Machinery. — The Reich Officer charged with price regulation published on 10 February 1938 an ordinance from 15 March, to 1 September 1938, effective regarding the regulation of prices and trade margins of agricultural machinery and utensils (4). This ordinance reduces the prices of such machinery and utensils and prohibits manufacturers and importers in future from allowing to the trade more than the maximum discounts on catalogue prices as approved by the ordinance. No increase, modification or introduction of supplementary discounts and allowances for accelerated delivery or expenses of transport are permitted to be made to the rates

(1) For regulation of hop markets in 1937 see *Monthly Bulletin of Agricultural Economics and Sociology*, 1938, No. 2, p. 94. — (2) *Verköndungsblatt des Reichsnährstandes*, 1938, No. 12. — (3) *Verköndungsblatt des Reichsnährstandes*, 1938, No. 26. — (4) *Verköndungsblatt des Reichsnährstandes*, 1938, No. 14.

already established. Maximum allowances and percentages are fixed for retail tradesmen and intermediaries. The saving thus obtained is devoted exclusively to the benefit of consumers. In any case the reduction in price paid by the farmer should be not less than 5 per cent. After 1 September 1938 it is intended to proceed to the definite regulation of the agricultural machinery trade, to be based on the experience gained by that time.

Subsidies for Increasing Production on, and Converting, Grass-lands and Pastures. —

In order to increase production on grass-lands and pastures and to make leasable those areas which are not, subsidies of 80 Reichsmarks per hectare were granted for breaking the ground and fencing, for the period from 1 April 1938 to 31 March 1939. A guarantee is necessary that the breaking of a given area would result in an increased yield. With a view to encouraging the breaking of grass-lands and pastures on small holdings special credits were created for the purchase and cooperative use of the necessary implements.

The Reich Institute for the Study of Questions concerning Meat. — In connection with the reconstruction of the Spandau municipal slaughter house it was decided to create a "Reichsanstalt für Fleischwirtschaft" (Reich Meat Institute). The new organisation will be charged with dealing with all economic and scientific aspects of the utilisation of slaughter stock that may arise during the passage from producer to consumer through markets, slaughter houses, refrigerating plants, pork-butchers and conserving industries. It will study in particular the problems of the best treatment of animals before slaughter, slaughter house technique, processing of meat and utilisation of slaughter house waste. Another function will be to advise communes on problems concerning slaughter houses. The utility of all technical and other innovations will be tested practically in laboratories. The Institute will keep in touch with the Reich training school for butchers (Reichsfachschule für Fleischer) so that any practical results obtained may be immediately available by butchers.

The Reich Labour Service and Agriculture. — In conformity with the law on labour service, every able-bodied young German is expected to undergo six months labour service. The enrolments of the first group of young people liable to this duty started on 1 October 1935. The number of individuals who will be thus conscripted simultaneously will amount to 230,000 by the commencement of October 1938 and to 300,000 by October 1939. The table of work (1) accomplished during the years 1935-36 and 1936-37 and the summer six months of 1937 shows the great importance of labour service for the intensification of the culture of the soil. Amongst the work accomplished by labour service, land reclamation (drainage, irrigation, flood protection, cultivation of uncultivated areas, disposition of marshy areas, and lands reclaimed from the sea, road construction etc.) holds the first place. This facilitates the execution of important works which are of great public interest but which otherwise would not have been undertaken either because they would not pay immediately or because they could not have been financed by private enterprise or by communities. These works have been executed chiefly for the benefit of land-reclaiming and land-improving co-operatives, and societies engaged in the building and upkeep of dikes. Only a small fraction of the value of the work of the Reich Labour Service is to be paid to the Reich. During the summer of 1937 labour service in numerous instances was also used for harvesting work as well as for forestry and the preparation of land for settlement purposes.

(1) *Wirtschaft und Statistik* 1938, No. 4.

*Distribution of Working-Days of the Reich Labour Service according
to Various Types of Work.*

	From 1 April 1935 to 31 March 1935	From 1 April 1935 to 31 March 1937	From 1 April 1937 to 30 Sept. 1937
Land reclamation	54.8	51.8	43.0
Harvesting	(1)	7.0	33.2
Road construction for agriculture	13.7	8.5	4.3
Forestry	12.2	16.1	7.4
Urban settlement	4.0	3.3	1.5
Rural settlement	1.2	1.1	0.5
Other work	14.1	12.2	10.1
	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

(1) Included in "Other work".

III. — SPECIAL MESURES TAKEN FOR THE BENEFIT OF AUSTRIAN AGRICULTURE

General Situation of Austrian Agriculture. — As a result of the *Anschluss* very important changes took place for Austrian agricultural production. A survey is given below of measures taken up to the present in order to adapt Austrian agriculture to that of the original territory of Germany. At the same time the consequences of the *Anschluss* as regards German food supplies are discussed.

The per-capita cultivated area of Austria (65 hectares per 100 inhabitants) is larger than that of the original territory of Germany (43 hectares) but, on the other hand, it includes extensive areas with low natural productivity and areas cultivated less intensively. Furthermore, a considerably greater part (55 per cent.) of the Austrian agricultural area consists of pastures, which in the former German territory constitute only 28 per cent. The yield of Austrian fields was on the average inferior to that of the former German territory by one quarter. The lesser intensity of Austrian agriculture can be seen from the following table of chemical fertilizers used per hectare of cultivated area in 1936-37:

	Germany Kg.	Austria Kg.
Nitrogen (N)	19.8	1.5
Potash (K ₂ O)	32.8	1.9
Phosphoric acid (P ₂ O ₅)	21.1	3.4

The fact that the use of chemical fertilisers in Austria was to such an extent below that of the former German territory is not explained by the difference in natural conditions and the different utilisation of soils. However the fact that Austrian agriculture failed to yield all it could was not due to lack of perseverance or of ability on the part of the Austrian population, but rather to the general adverse economic situation, which could encourage the increase of production only to a very limited extent. Austrian economic policy during recent years had aimed chiefly at the revival of foreign trade

Consequently recovery was limited almost entirely to branches of industry engaged in production for export. But during the second half of 1937, many of these industries suffered reverses. The effect of the increase in industrial production on the sale of articles for immediate consumption was barely noticeable (1). This is clearly seen from the index of sales of articles for immediate consumption, calculated by the Austrian Institute for Business Research. This index (1929 = 100) which fell to 64 in 1934 rose to 70 in 1935, and fell again to 66 in 1936, and to 65 in 1937.

The sale of agricultural produce was further greatly hindered by the fact that, in the interests of exportation, large quantities of food supplies were imported. Thus 499,000 pigs were imported in 1936, and 459,000 in 1937, while at the same time it became necessary to limit the fattening of pigs in the country itself. The same was the case with fodder, for while fodder imports were very large, Austrian farmers found themselves forced to reduce the production of barley, and of sugar beet.

The evolution of the revenues of Austrian agriculture changed but little in recent years, and as in preceding years, they remained at a very low level. This is all the more striking if the revenues are compared with those of the agriculture of the former German territory. The movements of these agricultural revenues are as follows (1927 = 100):

Years	Germany	Austria
1927	100	100
1933	80	47
1934	89	49
1935	94	50
1936	96	50

In view of heavy indebtedness this adverse movement of revenues resulted in a considerable increase in forced sales of farms by auction, the number of which rose in Styria from 684 in 1932, to 973 in 1933, 1,238 in 1934, 1,465 in 1935 and 1,046 in 1936.

All these difficulties resulted in the fact that in spite of its greater *per-capita* cultivated agricultural area, Austria was able to supply only 75 per cent. of its food requirements, compared with 80 per cent. in the former German territory. But while considering these figures, it is necessary also to bear in mind that during recent years, owing to the increased opportunity of securing work and earning wages, the consumption of animal products increased greatly in Germany, while in Austria, the consumption of food remained at the crisis level (2).

Amongst foodstuffs, the production of which exceeded requirements in Austria, the first place was held by butter and cheese. The quantities exported were not very considerable, but their rising trend is none the less conspicuous. The surplus of exports over imports (or of imports over exports = +) amounted to:

Year	Milk	Butter (metric tons)	Cheese
1929	2,901	505	+ 1,217
1936	11,431	3,533	3,067
1937	12,166	3,459	3,872

(1) *Monatsberichte des österreichischen Instituts für Konjunkturforschung*, 1938, No. 2. — (2) *Monatsberichte des österreichischen Instituts für Konjunkturforschung*, No. 2, 1938.

The exportation of dairy products, however, could not have increased so rapidly without the introduction of export bonuses. No precise information is available concerning the amount of subsidies paid out, but the Austrian Institute for Business Research (February 1938) estimated the total at 8 million schillings in 1937. For butter the export bonus amounted to about 175 per cent. in 1935, 110 per cent. in 1936, and about 83 per cent. in 1937 of the value of the butter at the frontier.

A very important element in Austrian foreign trade, on the other hand, was the export of timber and wood products. As the annual growth of timber reached about 9.5 million cubic meters, about 3 million cubic meters remained available for export, after deductions for home use and conversion into wood products, which were also exported to a very great extent. One of the principal buyers of these exports was Germany with its great need of timber and its various products.

In the social structure of their agriculture Austria and the former German territory presented but insignificant differences. In both countries peasant holdings operated by proprietors themselves predominated. The percentage distribution of holdings according to size was as follows:

Size	Germany	Austria
Less than 2 hectares	30	27
From 2 to 5 hectares	27	23
" 5 " 10 " 	21	18
" 10 " 20 " 	14	17
" 20 " 50 " 	6	12
" 50 " 100 " 	1	2
Over 100	1	1
Total	100	100

To sum up, it is possible to affirm that Austrian agriculture still possesses considerable productive potentialities. Their exploitation, however, is not likely to change considerably Germany's domestic possibilities of food supply. No doubt for some

Austrian Exports of Agricultural and Forestry Products in 1937.

Products	Unit	Total exports	Exports to Germany
Slaughter cattle	head	5,257	4,737
Draught oxen	"	3,615	3,507
Stud and lease cattle	"	5,387	1,888
Horses	"	1,460	1,388
Milk and cream	metric tons	12,242	12,236
Butter	"	3,464	1,620
Cheese	"	4,777	2,556
Apples	"	3,701	2,986
Timber	"	1,698,678	461,276
Paper	"	117,221	206
Cardboard	"	32,688	279
Cellulose and wood pulp	"	186,281	6,724
Leather and raw hides	"	5,318	153

Austrian products, the output of which exceeded domestic consumption, the prospects of sale have improved, because Germany imports these products. It is probable that this state of things will give a strong impulse to produce these goods. Also Austrian agriculture now has greater possibility of obtaining certain means of agricultural production such as chemical fertilizers, agricultural machinery and utensils, antiparasitic remedico, etc., of which Germany is an exporter.

Initial Measures for Increasing Production of Austrian Agriculture. — In order to ensure a rapid increase in Austrian agricultural production, a series of special measures was taken at the end of March:

(1) Reduction in the price of nitrogen and similar fertilizers, granted in 1937 within the former territory of the Reich (1), was extended to Austria. At the same time the reduction in transport charges for chemical fertilizers made by the State Railways Administration was applied also to Austria, with a resulting average decrease of 45 per cent. in the price of potash fertilizers. After the abolition of import duties, the price of nitrogen fertilizers underwent an average reduction of 32 per cent.

(2) To ensure the supply of fertilizers to holdings lacking financial means, Reich credits to the extent of 1,200,000 schillings were placed at the disposal of the Austrian co-operatives.

(3) Reich subsidies for building silos are granted to the extent of 75 per cent. of the cost of construction, but not exceeding Rm. 12 per cubic metre of capacity.

(4) To encourage flax and hemp culture, output bonuses are granted on the same conditions as in the former territory of the Reich, and at the rate of Rm. 4 per quintal of flax and hemp straw.

(5) For the financial year 1939, 9.5 million schillings were allotted for the construction of cattle sheds, and shepherds' cottages and huts on nearly a thousand alpages. This sum goes also towards the creation of vehicular roads and cattle, tracks as well as installations for providing water supplies in the alpages. During the following four years other sums will be allotted for the same purpose. Half the resulting expenditure will be covered by subsidies, and the other half will be supplied by the parties concerned, by means of joint labour.

(6) For the repair of agricultural buildings, construction of roads for agriculture and other similar purposes, 16 million schillings, in the form of subsidies, have been allotted for 1938. Other sums are granted for restoring deteriorated holdings.

(7) A sum of 21 million schillings has been allotted for special work on land improvement, such as alterations to river courses, streams and torrents, irrigation and drainage installations, and water supplies for agricultural purposes.

(8) To improve the market situation of certain agricultural products the Reich intervened by making purchases on its own account.

Relief of Agricultural Indebtedness and Regulation of Debts. — There is no recent data on the extent of the indebtedness of Austrian agriculture. In 1929 this already exceeded one thousand million schillings, rising to 1,344 million in 1930, and to 1,419 million in 1931 (2). It is probable that this indebtedness by now amounts to around 1,500 million schillings. This indebtedness, heavy as it was *per se*, was further aggrava-

(1) *Monthly Bulletin of Agricultural Economics and Sociology*, February 1938, page 95. —

(2) Documentation for the London Monetary and Economic Conference, prepared by the I. I. A., Rome, 1933, page 62.

ated by the height of the rate of interest, and by the disproportion between interest to be paid and farmers' gross receipts. After granting in March 1938 a moratorium until 30 June 1938 on all forced sales by auction of landed property, on 5 May a special ordinance was published regarding liquidation of the indebtedness of Austrian agriculture. This ordinance was inspired by the experience acquired in Germany in the matter of debt adjustment on the basis of the law of 1 June 1933.

Execution of the relief and adjustment is entrusted to the already existing agricultural administrative bodies, called *Landstellen*. The ordinance does not involve an obligatory reduction of debts, but tends, in conformity with the circumstances involved, to consolidate and register the debts, to convert them into amortisable debts payable to credit institutions, at a rate of interest of 5 per cent. and amortised at the rate of $\frac{1}{2}$ per cent. per annum, or to obtain a reduction in the rate of interest hitherto paid. The farmer is obliged to make available all his assets for the settlement of the debts on his holding. Eventually he might be required to surrender land, which then must be devoted to rural settlement. If the creditor cannot reasonably be expected to consolidate his debts, they must be redeemed by payment in cash or in redeemable obligations of the Deutsche Rentenbank. Debts in respect of employees, artisans, tradesmen and small creditors must be repaid immediately. The redeemed debts as a general rule, bear $4\frac{1}{2}$ per cent. interest, reducible in exceptional cases to $2\frac{1}{2}$ per cent., and payable to the Reich. The ordinance does not specify details, but leaves a good deal of latitude to the judgment of the institutions entrusted with its execution. Applications for adjustment must be filed before 31 December 1938. Creation of new debts and sale of liquidated holdings are subject to certain restrictions.

Organisation of Agriculture. — By an ordinance dated 18 May the law on the creation of the Reich Food Estate (*Reichsnährstand*) was extended to Austria and consequently all persons engaged in agriculture, associations working for the encouragement of agricultural activities, societies, co-operatives, the agricultural products trade, the food industry etc., are united into a single corporative organisation.

The highly developed organisation of Austrian agriculture for the most part developed parallel to German organisation and in some instances worked in close connection with it.

Agricultural cooperative organisation was very extended; it had previously been joined, with the assistance of the German co-operative organisations, in a clearing centre and revision association.

The Law on the Corporation of Agriculture fixes at the same time the conditions necessary for the establishment of market regulation. Previously there could be no question of a uniform market regulation covering all sectors of Austrian agricultural production. Measures were taken as the occasion arose. In this way it was sought to maintain the price of slaughter stock on an adequate level by a law concerning the trade in livestock, which regulated the offer of slaughter stock on the market; by a law concerning funds, providing by taxes on imports the sums necessary for regulating the trade in livestock; by a law making fattening obligatory on holdings cultivating sugar beet; and finally by the purchases through which the State intervened on the livestock market. Milk compensation funds, to which suppliers of milk intended for liquid consumption had to contribute as compensation part of the price secured, restrictions on milk supply, warehousing and melting of butter, and bonuses on butter exports, aimed at arresting the too pronounced decline in the price of milk and dairy products. A license tax on fodder imports, prohibition of commercial pig fattening, and the diversion of potatoes to alcohol distilleries were intended to prevent competition between the fattening of pigs on cheap imported fodders and cattle raising, especially among mountain farmers.

ITALY

The period studied in this Chronicle is characterised, as far as Italy is concerned, by the decrease of wholesale prices in several branches of the national economy. It is considered that – save for the appearance of new and unforeseen factors – the ascending movement of market prices which began at the end of 1934 has stopped.

In the strictly agricultural domain, the national wholesale prices index for primary materials of vegetable origin which was 87.1 in January 1938 decreased to 86.7 in February and increased again to 87.2 in March and 90.6 in April.

The index for primary materials of animal origin, on the contrary, declined from 96.4 to 88.4, 88.0 and 87.1 during the same period. However, the decrease in livestock prices is due as much to economic factors as to the drought which prevailed during recent months and which particularly affected cereal and fodder cultures. The lack of fodder forced producers of livestock to get rid of animals which they could no longer feed. In consequence of the recent rains, however, the general crop situation has improved.

As regards market prices of agricultural products it should be particularly noted that the Wheat Committee fixed the new price of wheat of 1938 harvest at 135 lire per quintal of soft wheat with a specific weight of 75 kg. per hectolitre, and at 150 lire per quintal of hard wheat. Last year the basic prices were 125 and 140 lire, respectively, for soft wheat with specific weight of 78 hectolitres per quintal and for hard wheath with 80 per ql. The price of raw cocoons was also augmented from 8 to 10 lire per kilogramme so that it should correspond to the cost of production.

MEASURES AFFECTING MARKETS AND PRICES.

Trade Agreements.

The unfavourable foreign trade position, which was particularly manifest in 1934, caused in 1935 a new orientation of Italian commercial policy. In fact, during the period from 1929 to 1933 Italy's foreign trade suffered a very marked regression; nevertheless the decline in the value of imports (— 65 per cent.) was more than in exports (— 60 per cent.); this involved a reduction of the foreign trade deficit from 6,400 to 1,400 million lire.

But in the following year, while exports continued to diminish, imports resumed their ascending rhythm in correspondence with the recovery of the national economy which in 1933 overcame its most acute stage of depression.

These variations in the currents of trade caused a heavy increase of the deficit which rose from 1,400 million lire in 1933 to 2,400 in the following year. This deficit represented an element of disorder in the economic and financial equilibrium of the country, all the more so as in consequence of the crisis the credit items in the balance of payments were very much reduced.

Special political circumstances influenced the progress of foreign trade during the years 1935 and 1936 in such a way that this period should be considered abnormal.

Below are given the figures of Italian foreign trade during recent years, without taking into account trade with the colonies, as it does not affect directly the balance of payments of the country.

Foreign Trade of Italy (excluding colonies and possessions).

	Value in millions of lire			
	1934	1935	1936	1937
IMPORTS				
Primary materials for industry	3,433.7	3,405.9	2,435.1	5,936.5
Semi-manufactured materials for industry .	1,561.9	1,866.1	1,407.7	2,876.8
Manufactured products	1,522.7	1,354.9	1,208.6	1,874.2
Foodstuffs and live animals	1,063.9	1,046.1	831.3	2,801.3
Total . . .	7,582.2	2,673.0	5,882.7	13,488.8
EXPORTS				
Primary materials for industry	698.3	524.6	456.7	945.8
Semi-manufactured materials for industry .	1,086.3	969.4	794.4	1,722.5
Manufactured products	1,696.7	1,458.9	1,015.5	2,722.8
Foodstuffs and live animals	1,583.7	1,535.5	1,563.0	2,457.7
Total . . .	4,965.0	4,488.4	3,829.6	7,848.8
Deficit in balance of trade	- 2,617.2	- 3,184.6	- 2,053.1	- 5,640.0

The increase in the value of foreign trade in 1937 reflects to a great extent the considerable increase of prices. This increase manifested itself to a more accentuated degree in imports than in exports contributing thus to the formation of a deficit of 5,640 million lire. The most striking feature of the evolution of imports is the increase in food purchases. The insufficiency of the 1936 wheat harvest necessitated in the following year the purchase from abroad of one million and a half tons of wheat to the value of 1,400 million lire; during the preceding three-year period these purchases only reached on the average half a million tons.

The tendency of Italian foreign trade during recent years required a commercial policy characterised by a rigorous control of importation and by special efforts made to develop exportation.

In consequence of the monetary devaluation, the Government abolished first of all the tax of 15 per cent. *ad valorem* imposed on the greater part of merchandise, including foodstuffs and raw materials. Next it reduced the specific customs duties levied on certain foodstuffs and raw materials (1). The study was even undertaken of the problem of a general revision of the customs tariff with a view to adapting it to the new exigencies of production.

In order to encourage the resumption of trade, negotiations were conducted with several countries with a view to making agreements calculated to insure as far as possible the equilibrium of the trade balance.

(1) See the modifications made in customs duties since 6 October 1936 in the March 1938 issue of the *Chronicle on Italy*.

Since July 1936 more than 90 commercial and quota agreements have been signed. Almost for every European country these agreements were completed by payments agreements founded upon the system of general compensation (clearing). Efforts are being made to avoid the depletion of the stock of foreign currency by the trade balance deficits.

The principle of these agreements consists of admitting into Italy imports above quotas already fixed only in exchange for the consent by the signatory country to accept on its markets exports of Italian products to an equal value.

The agreements effected with the nations subject to customs or monetary restrictions (Belgium, Czechoslovakia, Denmark, Estonia, France, Germany, Greece, Holland, Hungary, Latvia, Lithuania, Poland, Romania, Switzerland and Turkey) envisage special quotas for Italian exports. Clauses were also inserted providing for periodical revision of the agreements and their prompt adaptation to the market situation.

Below is given a brief review of some of these agreements.

With Germany agreements were signed on 18 December 1936, 9 March, 14 May (1) and 18 December 1937. In general they enlarged the previous bases of trade. In 1937 merchandise was exported to Germany to the value of 1,500 million lire, consisting chiefly of fruit and citrus fruit, vegetables, hemp, silk and artificial fibre. Imports, to the value of over 2,500 million lire comprised chiefly coal, machinery, fertilisers, hides, etc. New agreements of an economic, commercial and customs character were concluded on 28 May 1938. They regulate the whole group of problems arising from the union of Austria with the Reich.

Trade with Switzerland is effected on the basis of the agreements made on 20 June 1936 and providing for mutual quotas based on 1934 trade. Woollen and silk textile fabrics and olive oil figure in the exports to Switzerland.

As far as Hungary is concerned, the necessity of adapting trade to the particular exigencies of the Italian and Hungarian economies was taken into account. By an agreement of 4 July 1936 (2) the Italian Government undertook to purchase 2 million quintals of Hungarian wheat of the 1936-37 harvest. In 1937 Italy imported from Hungary 84,031 head of cattle to the value of 145,503,000 lire and 1,435,540 quintals of wheat for 108,042,000 lire.

The agreements made with Yugoslavia are of special importance for agriculture. By an agreement signed in Belgrade on 25 March 1937 particular measures were adopted to intensify the development of economic relations between the two countries. A "Permanent Italo-Yugoslav Economic Committee" was instituted and charged with facilitating the solution of various technical problems concerning trade and payments between the two countries. Another agreement dated 7 January 1938 (3) settled that each of the two countries will admit as far as possible the imports of merchandise originating from the other, taking into account the usual currents of their foreign trade. This agreement, which is in force until 30 June 1938, will be renewed tacitly every six months unless denounced at least two months before the expiration of each six-months' period. In 1937 Italy imported from Yugoslavia: 2,914 horses to the value of 3,252,000 lire; 44,100 head of cattle for 45,147,000 lire; 20,956 pigs for 13,500,000 lire; 30,475 quintals of poultry for 14,084,000 lire; 4,830 quintals of fresh and frozen meat for 2,094,000 lire; 349,040 quintals of wheat for 26,791,000 lire; 217,320 quintals of maize for 12,526,000 lire; 2,369,501 quintals of rough, squared, sawn (etc.) timber for 76,209,000 lire.

(1) *Gazzetta Ufficiale*, 18 February 1938. — (2) *G. U.*, 21 October 1936. — (3) *G. U.*, 21 May 1938.

Agreements were also made with other Balkan countries, namely: Romania (1), Greece (2), Bulgaria (3) and Turkey (4).

The resumption of trade with Great Britain and Northern Ireland was regulated by virtue of the agreements signed on 6 November 1936 (5), which fixed the quotas for imports into Italy and the modalities of payments by compensation between the two countries. They were replaced by a new trade agreement dated 18 March 1938. Owing to the agreement of 6 November 1936, imports from Great Britain into Italy in 1937 totalled 541 million lire and exports of Italy to Great Britain rose in the same year to 639 million lire. Among imports, the raw materials group (360 million lire) predominates, while foodstuffs (253 million lire) and manufactured products (283 million) lead in exports. Among exported foodstuffs, 62 million lire are for citrus fruit, 56 million lire for other fruit, and 72 million lire for tomato preserves.

The provisional convention of 11 August 1936 (6) regulating trade with France was renewed by subsequent negotiations until 31 March; thus trade follows a normal course.

An agreement of 30 June 1937 (7) regulated anew the whole of the trade between Belgium and Italy.

With Holland a new quota plan dated 31 December 1937 (8) was established, which applies to trade with Holland and with the Netherlands East Indies. Dutch imports into Italy during 1938 will include sucking pigs, unprepared meat, livestock for reproduction, live poultry, casein for the textile industry, cheese, seed potatoes, vegetables, vegetable oil, flax, etc.

As regards Sweden, the agreement of 1 December 1936 (9) regulates on wider bases the whole regime of trade and payments.

For Norway, the import regime in wine and certain market-garden and fruit crops formed the object of special agreements dated 31 March 1937 (10).

An agreement of 17 December 1937 (11) with Denmark fixed reciprocal import quotas for the year 1938. Amongst the Italian merchandise to be imported into Denmark the chief items are, *inter alia*, almonds, walnuts and hazel-nuts, fresh fruit, wines, artificial silk filaments; amongst the merchandise to be imported into Italy the chief item is cattle.

New reciprocal import quotas were established with Poland by an agreement of 18 February 1938.

Regarding the Baltic countries, agreements were made with Finland (23 November 1937), Lithuania (22 September 1936), Latvia (5 February 1937), and Estonia (6 October 1936); they concern quota agreements completed by payments agreements (clearings).

As regards countries outside Europe, there should be noted, *inter alia*, a provisional agreement of 16 December 1937 (12) with the United States. It prescribes complete application of most favoured nation treatment in the matter of customs duties, import prohibitions and restrictions, import licences and exchange control.

With Argentina, an agreement was signed on 4 March 1937 (13) confirming application of the most favoured nation clause, as provided for in all agreements with the South-American republics. For merchandise destined to Italy, the above-mentioned

(1) *Gazzetta Ufficiale*, 4 June 1937. — (2) *G. U.*, 6 June 1938. — (3) *G. U.*, 4 April 1938. — (4) *G. U.*, 30 May 1938. — (5) *G. U.*, 22 January 1937. — (6) *G. U.*, 22 October 1936. — (7) *G. U.*, 20 December 1937. — (8) *G. U.*, 20 June 1938. — (9) *G. U.*, 24 March 1937. — (10) *G. U.*, 16 June 1937. — (11) *G. U.*, 20 May 1938. — (12) *G. U.*, 27 April 1938. — (13) *G. U.*, 7 June 1937.

agreement provides for 1937 quotas to the total value of 450 million lire, of which 150 million are for wheat, 50 million for maize, 100 million for wool and 50 million for frozen and chilled meat. Argentina on her side undertakes to grant the official exchange rate for payment of all merchandise imported from Italy to an amount equal to the value of purchases effected by the latter country on the Argentinian market. The agreement in question is renewable from year to year unless denounced by three months' notice. At every renewal the two Governments will fix, in common accord, the quotas for the following year. For 1938 quotas for imports into Italy were fixed, by an agreement of 24 December 1937 (1), at the sum of 460 million lire, of which 50 million are for wheat, 30 million for maize, 125 million for wool and 65 million for frozen and chilled meat.

Finally, in the beginning of 1936, a new State Office was created for giving effect to commercial and monetary policy, the "Undersecretariat for Foreign Trade and Exchange". It replaced the National Fascist Institute for Foreign Trade and the National Institute for Foreign Exchange and was transformed into a Ministry in November 1937.

SWITZERLAND

Swiss agricultural production in 1937 was sufficiently good for the year to be regarded as normal. The gross return, which represents the value of products sold and of those consumed on farms, amounted to 1247 million francs, and thus exceeds by 100 million francs that for 1936. The net return on capital rose by about 1 per cent.; it increased from 3.02 per cent. in 1936 to about 4 per cent. in 1937. The harvest of fodder and of cereals was excellent; fruit and potatoes were abundant and good in quality. On the other hand the yield of vines in French Switzerland was bad (2).

The year 1937-38 began favourably. Reduction in dairy production in 1936 (about 4,800 tons of butter, and 9,600 tons of cheese below the preceding year) as well as general improvement in the dairy market, had a good effect on the Guarantee Funds of the Central Union of Swiss Milk Producers. But milk production began to increase from the middle of 1937. The quantity of milk delivered to collecting stations reached the following figures (1913-100):

1931	102	1935	113
1932	107	1936	111
1933	117	1937	113
1934	116		

The rise in dairy production in 1937 is due to excellent fodder crops, to the increase in the number of milch cows, and to a wider use of fodder cake. The proportion of milk consumed did not change. Exports of cheese fell from 187 million quintals in 1936 to 170 in 1937. The demand for cheese on the world market has been declining since the spring of 1937.

(1) *Gazzetta Ufficiale*, 31 May 1938. — (2) *Feuille fédérale*, No. 9, 2 March 1928.

The sale of Swiss cheese abroad met with very great difficulties due to quotas, shortage of foreign currencies, competition of the Emmenthal types of cheese manufactured in other countries, and the high price of Swiss cheese. The sale of butter seems to have reached a maximum. The consumption of cheese has diminished by about 2,000 tons since 1936; this is due to the increase in the price of milk, which began on 1 February, and to abundant fruit crops, which resulted in fruit being substituted for cheese. On the other hand, the comparatively high selling price of cheese, and above all that of butter, did not cover, if account is taken of retail margins, the expenses of production, and the price guaranteed by the Central Union.

MEASURES AFFECTING MARKETS AND PRICES

The Dairy Market.

From the autumn of 1937 the above circumstances drew the attention of the Department of Public Economy and of the Central Union to the darying problem. It was soon found that the credits opened under an decree of 18 March 1938, including a supplementary credit of 5 million francs, would not be sufficient to maintain the level of milk prices during the season 1938-39;

On 22 February 1938, the Federal Council, considering the situation of the Swiss Dairying Industry to be serious, proposed in its message to the Federal Assembly the adoption of energetic measures which included the development of the growing of cereal and hoed crops (1). This adaptation would tend to reduce the excessive specialisation of Swiss farming, and, at the same time, would meet the needs of national defence.

On 30 March 1938 the Federal Council decreed the opening a supplementary credit intended to maintain the price of milk. According to the terms of this decree, in force since 1 May 1938, a supplementary credit of a maximum of 15 million francs, over and above the credits opened by the Federal resolution of 18 March 1937, is placed at the disposal of the Federal Council, for the support of the price of milk. (2).

Dairy production is the object of the Federal Council Order dated 25 April 1938 (1). Farmers are invited to adapt their production as much as possible to the needs of the country and to marketing possibilities. They are required to make the necessary modifications on their holdings.

In particular they must limit the number of dairy cows, develop fattening and extend cultivation. Every proprietor of cattle has to restrict the fodder requirements of his herd to the producing capacity of this estate. The purchase of rough local fodder (grass, hay, aftermath) is authorised as a supplementary measure but the use of imported fodder must be reduced. Furthermore the farmers concerned should aim at improving the quality of milk by every available means. From May 1938 the Dairy Federations have been obliged to limit the quantity of milk destined for sale. The milk trade is regulated by Art. 5 and subsequent Articles of the above order. The producers affiliated to a collecting centre, as well as milk carriers and other suppliers, must bring to this centre all milk intended for sale. Measures have been taken to prevent the evasion by producers of the obligation to contribute to the guarantee funds. The Department of Public Economy publishes regulations concerning accounts and control.

(1) *Feuille fédérale*, No. 9, 2 March 1938.

The Livestock Market.

The trend of the dairy and breeding-cattle market has not changed to any noticeable extent since 9 February 1937. Exports have increased from 6,828 heads in 1936 to 9,027 heads in 1937.

The Federal Council deems the increase in the number of cattle to be alarming. At the time of the 1935 census Switzerland had 1,590,040 head of cattle. After having fallen to 1,566,975 in April 1936, the number increased to 1,637,748 (of which 893,004 were cows) in April 1937. The maximum figure of 1937 (1,683,932 head) is not yet reached, but there is an increase of 70,773 (of which 13,479 are cows) as compared with 1936. During the same period however the offer of slaughter cows declined considerably and recourse to imports from abroad became necessary (1).

A decree of the Federal Council dated 14 January 1938 prolongs until 31 December 1941 the validity of the decree of 6 August 1935 which was to remain in force until 31 December 1937 and which introduced provisional measures for combating epizootic miscarriage amongst cattle and streptococcus mammitis amongst milch cows (2).

The Pig Market.

The imposition of quotas exercised a beneficial influence upon this market. Supplies did not exceed the possibilities of absorption and prices became stabilized.

By a decree dated 11 January 1938 the Federal Council reduced temporarily the customs duties on pigs (3).

Regulation of Fodder Imports.

To combat overproduction of products of animal origin and to support the price of cattle and milk, the Federal Council issued, on 29 December 1937, a decree which charges the Swiss Cereals and Fodder Co-operative Society with levying a price supplement on imported fodder supplies, straw, stable-litter, peat and seed-potatoes. This supplement was applicable from 1 January 1938 (4) and was increased on 26 March by an order of the Federal Department of Public Economy (5).

The Cereal Market.

By virtue of the order of the Department of Public Economy dated 10 February 1938 an indemnity on whole-meal flour, the sale of which has suffered greatly, was paid to commercial millers. This indemnity was intended to compensate for losses incurred in the sale of whole-meal flour during the third quarter of 1937 (from 1 July to 30 December) and was fixed as follows: 5.70 francs per 100 kilogrammes of whole-meal flour on output above the average of 20 per cent. of the total output of flour; 3 fr. per 100 kg. on the entire output of whole-meal flour. It was to be paid for the period from the reduction of the price up to 30 December (6).

(1) *Recueil des lois fédérales*, No. 12, 6 April 1938. — (2) *Recueil*, No. 31, 19 January 1938. — (3) *Recueil*, No. 11, 30 March 1938. — (4) *Recueil*, No. 50, 29 December 1937. — (5) *Recueil*, No. 2, 12 January 1938. — (6) *Recueil*, No. 7, 16 February 1938.

For the fourth quarter of 1937 millers are entitled to an indemnity on their output of whole-meal flour in excess of 5 per cent. of the total output of flour. This indemnity amounts to 6 francs per 100 kg. of whole-meal flour if the output reached 10 per cent.; 7 fr. for output over 10 per cent. and up to 20 per cent. and 8 fr. for output exceeding 20 per cent. of the total output of flour.

For the first quarter of 1938 this indemnity was fixed at 6 fr. per 100 kg. of whole-meal flour for output up to 10 per cent.; 6.50 fr. for output exceeding 10 per cent. up to 20 per cent. and 7.50 fr. per 100 kg. if the output of whole-meal flour exceeded 20 per cent. of the total output of flour (1):

On 25 February 1938 the Federal Council decreed that the Cantons which grant subsidies for hail insurance in virtue of Art. 13 of the Federal Law of 22 December 1893, should benefit by annual federal subsidies.

These subsidies are to be equal to the cantonal subsidies, but in no case can they exceed, for insurance policies falling due, 50 per cent. of their amount, and for premiums payable by the agriculturists, 10 per cent. of such premiums in the case of vine-growers, and 7 ½ per cent. in the case of other crops. (2).

The Potato Market.

On 14 April 1938, the Federal Council issued a decree concerning the fight against black scurf and colorado beetle in potatoes, fixed the measures to be adopted at the frontiers and within the country, regulated the trade in seed-potatoes, and provided for penalties in case of infractions. (3)

The Wine Market.

The decree of the Federal Council dated 16 September 1935 concerning diluting of wines has been abrogated by a decree of 9 April 1938. The latter provides that the regulations contained in Art. 341 of the order dated 26 May 1936 regulating trade in food supplies and concerning indication of origin and obligatory declaration of dilution of wine, do not apply to the dilution of foreign red wines, rich in colour, with 75 to 80 per cent. of white wines of 1936 and 1937 Western Switzerland vintages, whenever these last are acquired by selling organisations in accordance with special agreements with the Federal Authorities (4).

The Tobacco Market.

The decree of the Federal Council dated 24 December 1937 imposes import duties on raw and manufactured tobacco and tobacco waste, and a tax on tobaccos manufactured in Switzerland and on cigarettes made by hand in Switzerland outside factories (5).

(1) *Recueil des lois fédérales*, No. 11, 30 March 1938. — (2) *Recueil*, No. 9, 2 March 1938. —

(3) *Recueil*, No. 14 (20 April 1938). — (4) *Recueil*, No. 13, 13 April 1938. — (5) *Recueil*, No. 50, 29 December 1937.

MEASURES AFFECTING AGRICULTURAL ECONOMY IN GENERAL

There should also be noted the prohibition of fodder and litter imports from countries where there is foot and mouth disease (decree of 4 December 1937); the prolongation until 31 December 1939 of the Federal decree of 29 September 1936 on extraordinary measures of an economic character decree of 23 December 1937); the authorisation given by the Federal Assembly to the Federal Council to guarantee export risks to the amount of 20 million francs; and the regulation contained in the decree of the Federal Council dated 29 April 1938 having the object of limiting imports. (1).

NEW PERIODICALS RECEIVED BY THE LIBRARY OF THE INTERNATIONAL INSTITUTE OF AGRICULTURE for the second quartier of 1938 (*).

ADMINISTRADOR rural; ...organo oficial del Centro de administradores y mayordomos rurales. [Buenos Aires], v. 6 (1938)- mens. \$ 4 int.; \$ 6 étr.

L'ALGÉRIE laborieuse. Alger, Office algérien d'action économique et touristique. no. 2 (1936)- irr.

BAUER und Volk. Agrarpolitische Monatshefte. Prag, v. 5 (1938)- 10 fois par an. Kč. 40 int., Kč. 55. étr. [Formerly « Agrarpolitische Monatshefte, vormalis Sudetendeutsche landständische Monatshefte ».]

CUBA económica y financiera; antes « Cuba importadora e industrial ». Habana, v. 13 (1938)- mens. [Containing an English section and titles also in English.]

DEUTSCHE Fleischer-Zeitung;... Amtliches Organ des Reichsinnungsverbandes des Fleischerhandwerks. Berlin, 1938- q. RM. 24.60.

DEUTSCHE Forstzeitung;... Mitteilungsblatt der Reichsforstverwaltung. Berlin, Hauptamt für Beamte der Reichsleitung der NSDAP, v. 7, no. 3 (6 fevr. 1938)- hebd. RM. 6. [Formerly « Deutsche Forstbeamtenzeitung ».]

ESTATES quarterly review. Melbourne, The Australian estates company, Ltd. v. 2, (1937)- trim.

UNITED STATES. Farm credit administration. Cooperative division. Research service and educational series. Miscellaneous report. Washington, D. C., no 1 (1934)- irr. [Mimeographed.]

(1) *Recueil des lois fédérales*, No. 49, 15 December 1937, No. 50, 29 December 1937, No. 16, 4 April 1938.

(*) *List of abbreviations*: bihebd. (biweekly); bimens. (twice monthly); bimestr. (every two months); déc. (every ten days); étr. (foreign price); fasc. (copy); hebd. (weekly); int. (home price); irr. (irregular), mens. (monthly); no. (number); N. S. (new series); p. a. (per annum); q. (daily); sem. (half yearly); s. (series); v. (volume); trim. (quarterly).

N. B. — Between brackets [/] are given translations and explanatory notes not appearing in the title of the review.

- FARMERS' report. Seale-Hayne agricultural college. Department of economics. Newton Abbot (Devon), no 7 (1933)- irr. [Mimeographed.]
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MONTHLY BULLETIN

OF

AGRICULTURAL ECONOMICS AND SOCIOLOGY

1938

No. 7

INTERNATIONAL ORGANISATION OF THE WHEAT MARKET

SUMMARY. — The wheat crisis. International meetings during 1930. International meetings during 1931. The International Preparatory Conference of the Second Wheat Conference. The 1931 London Conference of Wheat Exporting Countries. International meetings during 1932. The London Monetary and Economic Conference of 1933. The International Wheat Agreement.

The International Wheat Advisory Committee, created in 1933, was prolonged till 1936, and then in 1936 until July 31 1938 and again recently for a period of two years. It may be of interest to publish a study dealing with this Committee, with the International Wheat Agreement of 1933 by virtue of which it was set up and also with the international activities which preceded, and partly paved the way for that Agreement.

The Wheat Crisis.

After several years of a limited but progressive decline in wheat prices, a formidable fall took place during the crisis of 1930-31. This fall was chiefly due (apart from general causes which brought about a decline in the price of almost every class of merchandise after the end of 1929) to an increasing accumulation of stocks over several years, which in consequence of the exceedingly abundant harvest of 1928 had reached a high figure.

The exceptionally high average output, in exporting countries in 1928, was the result of the unusual harvest of that year due to the very favourable meteorological conditions and to an extension of the area under wheat cultivation. This increase in area, which had been progressive since 1924, in 1928 exceeded by about 8 per cent. the average of the previous four years. The concurrence of these two factors caused an increase in production of 17 per cent.

This increase was not accompanied by a proportionate increase in consumption. Although consumption rose owing to growth of population, to increased consumption of low-priced wheat by populations mainly using other cereals, to extension of the use of wheat for fodder, and to a greater quantity of grain being used for sowing (due to the increase in the area sown)—the average annual consumption during the period 1928-33 remained below the average quantity available by nearly 20 million quintals. (The U. S. S. R., China, Turkey, Persia and

Iraq, are not included in this figure). Nevertheless, this lack of equilibrium between production and consumption would not have had such serious consequences had it not lasted for several years.

The surplus of production, which culminated in 1928, did not influence prices immediately. The measures taken in the United States and Canada, and the less abundant harvests of 1929, limited the fall in prices for a while. It was during 1930-31 that the falling tendency became accentuated, and that the serious results of the lack of equilibrium between consumption and production, and of the conspicuous reappearance of the U. S. S. R. as a wheat exporter, were felt to their full extent.

An interesting table is given below of production, consumption, stocks and prices, during the period from 1923-24 to 1932-33 (1).

Years	Annual production (1)	Export from the U. S. S. R. etc. (2)	Supplies available from the year's crop	Consump- tion (3)	Variations in stocks	Price of La Plata wheat at Liverpool (cents per bushel)
1923-24	3,477	24	3,501	3,377	+ 124	121
1924-25	3,087	—	3,087	3,252	— 165	180
1925-26	3,338	28	3,366	3,290	+ 70	166
1926-27	3,396	49	3,445	3,408	+ 37	159
1927-28	3,611	3	3,614	3,543	+ 71	151
1928-29	3,939	—	3,939	3,678	+ 261	128
1929-30	3,453	10	3,463	3,518	— 55	122
1930-31	3,716	116	3,832	3,744	+ 88	71
1931-32	3,673	68	3,741	3,783	— 42	56
1932-33	3,675	15	3,690	3,600	+ 90	(4) 50
Average 1923-24/1927-28 . .	3,382	21	3,403	3,374	+ 29	155
Average 1928-29/1932-33 . .	3,691	42	3,733	3,665	+ 68	85

(1) Not including the production of the U. S. S. R., China, Turkey, Persia and Iraq. — (2) Total net export of the U. S. S. R., Turkey, Persia and Iraq. — (3) Not including the consumption of the U. S. S. R., China, Turkey, Persia and Iraq covered by domestic production. — (4) Average August 1932 to March 1933.

International Meetings during 1930.

This study is not concerned with national measures taken with a view to combatting the crisis, nor mainly with agreements and discussions aiming at regulating parts of the world market, even if these paved the way towards agreements of a more general character.

The chief subject of this study is rather the work of those international meetings which aimed at the conclusion of a world-wide agreement concerning wheat.

In 1930 there were several international assemblies at which the Danubian States claimed preferential treatment for their cereals.

(1) DOCUMENTATION FOR THE MONETARY AND ECONOMIC CONFERENCE. — International Institute of Agriculture. Rome 1933, p. 257.

Occasionally the idea of a more general agreement, with a view to meeting the crisis, was raised, but that year yielded no concrete results for the solution of the general problem (1).

Mention should also be made of the Inter-American Conference on Agriculture held in September 1930 which, in its final report, recommended concerted international action as necessary for the solution of the problem of over-production (2).

International Meetings during 1931.

In 1931 the necessity for a world-wide agreement concerning wheat was emphasized.

While the first meeting of agricultural experts of the League of Nations, held from 6 to 9 January 1930, only discussed the general bearings of the question, the second meeting (Geneva, 12-14 January 1931) led to an exchange of views on preferential customs treatment, the restriction of cereal production, market organisation, utilisation of cereal surpluses, and the question of increased consumption.

The exporting countries played an important part at this meeting; the Argentine, Australia, Canada, the United States, Hungary, India, Yugoslavia, Poland and Romania were all represented. The Chairman of the Economic Committee of the League of Nations, examining the various opinions expressed by experts on the possible organisation of international trade in agricultural products, and particularly in wheat, drew the Committee's attention to the possibilities of an agreement in the existing state of things, in which the cereal market is disputed between producing countries overseas and the countries of Central-Eastern Europe. While the former poured on the market great quantities of cereals at unsatisfactory prices, the latter were not able to sell the very limited stocks at their disposal.

The Chairman did not think it unreasonable to hope that the two groups interested might reach an agreement whereby the overseas countries would con-

(1) The following should be recorded: (a) The meeting of agricultural experts designated by the Economic Committee of the League of Nations (Geneva, January 6-9, 1930); (b) the Thirty-first Session of the Economic Committee, which discussed the report of the agricultural experts (Geneva, February 10-11, 1930); (c) the Preliminary Conference with a view to Concerted Economic Action (Geneva, February 17-March 24, 1930); (d) the Little Entente Conference (Strbské-Pleso, June 25-27, 1930); (e) the first Bucharest Conference (July 22-24, 1930); (f) the Sinais Conference (July 31-August 1, 1930); (g) the Warsaw Conference (August 28-30, 1930); (h) the Imperial Conference, London, October 1-November 14, 1930; (i) the second Bucharest Conference (October 18-21, 1930); (k) the Belgrade Conference (November 10-14, 1930); (l) the Conference for Concerted Economic Action (Geneva, November 17-18, 1930). — F. HOULLIER, *The International Organization of Agriculture*, Paris, 1935, page 149. *Wheat Studies of the Food Research Institute. Stanford University, California, vol. VII, page 444.*

(2) PASSOW L., *Die zwischenstaatliche Regulierung des Weizenangebotes auf dem Weltmarkt* in *Weltwirtschaftlichen Archiv*, Jena 1937, page 175.

tinue to supply their present quantity to Europe, while the countries of Central and Eastern Europe would be able to place the relatively modest surplus of their production. He added that it seemed essential that the two groups of producing countries should consult each other and if possible arrive at an agreement. He was impressed by the fact that even those experts who throughout the discussion upheld the free trade view, had expressed no opposition to such agreements provided they were freely made. He added that the problem did not admit of an immediate solution; there were intermediate stages to be gone through (1).

The Commission of Studies for a European Union (Geneva, 16-21 January 1931), while recognizing the necessity for remedying the serious crisis in the situation of the agricultural countries of Central and Eastern Europe without waiting for a solution on a larger scale, nevertheless expressed the wish that such a solution would materialise as soon as possible, and placed great hopes in the Wheat Conference convened at Rome for March 26.

The Commission of Studies considered that the measures taken for marketing the 1930 crops, and those contemplated with regard to agricultural credits, did not touch the problem of the export of surpluses of future harvests. The Commission therefore expressed a wish that the overseas countries concerned would agree to take part in the above-mentioned Conference, so as to make possible the examination of the problem in all its aspects (2).

This assembly was followed by a meeting of the Permanent Committee of Economic Studies in Bucharest (16-18 February, 1931), and by two meetings (Paris, 23-28 February, 1931) of the Committee set up by the second Session of the Commission of Studies for a European Union.

At its first meeting this Committee sought for the means of placing the then available cereal surplus. At its second meeting it examined the permanent difficulties of finding an outlet for European cereal surpluses, and suggested measures suitable for remedying them. The Committee recognized that the problem of European cereal surpluses was not solely a European problem, but a world-wide one, and that no satisfactory solution for it could be found, except by an agreement between all the interested countries of the world. The Committee emphasized the fact that since the war Europe had not increased the area under cereals, although drawing from it a slightly increased output. The over-production was not in Europe, but in the world as a whole. The circumstances of this over-production, and in particular the reappearance of Russian cereals on the market, made it clear that the resulting crisis could not right itself automatically except after a long period, and at the cost of serious sufferings. Hence the Committee thought that it would be to the advantage of the producers of all continents to join their efforts in an attempt to cope

(1) ACTES DE LA CONFÉRENCE INTERNATIONALE PRÉPARATOIRE DE LA II^{ème} CONFÉRENCE MONDIALE DU BLÉ. International Institute of Agriculture, Rome, 1931, page 459.

(2) ACTES, *cit.*, page 465.

with the crisis. In the Committee's opinion the Conference convened at Rome for 26 March would offer the next possibilities for the indispensable exchange of views provided all the States concerned agreed to take part in this Conference (1).

The International Preparatory Conference of the Second Wheat Conference.

From 20 to 25 March the International Institute of Agriculture summoned the experts to Rome, with a view to preparing the work for the International Preparatory Conference of the second Wheat Conference.

The discussion at this meeting, in which two observers from the United States took part, covered the points which were to constitute the programme of the Conference, and which were of the greatest importance by reason of the high standing authority of the experts who took part in it.

With regard to the question of the international production of, and trade in wheat, all the experts recognized the lack of equilibrium between supply and demand on the world wheat market, but they expressed a great variety of opinions in regard to the best means for putting things right.

These opinions are remarkably interesting, and can be grouped according to the following points: increase of consumption, reduction of production, and international action for the more rational organisation of trade. Some experts also formulated certain considerations and suggestions of a general character (2).

The International Preparatory Conference of the second Wheat Conference was held in Rome from 26 March to 2 April 1931 and brought together the official delegations of 48 countries, comprising all wheat-producing countries except the United States.

The work of its three plenary sessions, and of the three Commissions set up to study the three problems on the agenda (international organisation of production and trade, international credit, and preferential customs treatment) confirmed the conviction of all members of the Conference, that the existing wheat crisis could not be solved except on an international basis.

As regards the international organisation of production and trade in wheat, the Conference proposed that the possibility of further developing the consumption of wheat in those countries where it is already generally consumed should be considered; together with energetic propaganda to popularize wheat consumption in countries in which it is not in common use. To make such propaganda more effective, the Conference thought that it might even be worth while to liquidate at low prices, in such countries, part of the surplus stock on the world market.

The Conference recognised that the European countries, for various economic, social or political reasons, are not in a position either to abandon the cultivation of wheat, or to allow it to decline too seriously; and also that it is impossible to effect a general reduction in sown areas by the direct method of obligatory

(1) HOUILLIER, *op. cit.*, page 151. — ACTES, *cit.*, page 477.

(2) ACTES, *cit.*, page 689.

regulation — whether or not such regulation were instituted by international or national bodies. The Conference was convinced, on the other hand, that a reduction in sowing could only be obtained naturally by the farmers themselves, under the influence of market conditions, and by the study of figures and facts. In this respect the Conference recommended that the countries which deemed it advisable should reinforce the influence of natural conditions by propaganda amongst producers.

The Conference took the view that the solution of the wheat crisis depended, before everything else, on a better organisation of the wheat market. Such organisation should be attained gradually on the basis of experience acquired, rather than by any sudden ready-made plan for solving the whole problem.

To obtain a rapid solution, the Conference recommended the countries concerned to concentrate their efforts at once upon one limited and precise aim: the disposal or organisation of the carry-over of their present stocks.

The Conference noted with satisfaction that, having decided to work out a plan for the 1931-32 wheat export year and for stocks, the overseas and European countries were to meet in London for this purposes on 18 May. At the same time the Conference recommended buyers in importing countries to make an effort to organize purchases of imported wheat wherever there was a need for such an effort. The Conference expressed the opinion that improvement in the organization of world wheat production and trade depended to a great extent on the improvement in crop intelligence and statistical forecasting. It relied on the International Institute of Agriculture to coordinate statistical data, to control and interpret the figures to supplement and the official documentation with all information of technical and commercial origin that might throw light on the problem, to facilitate the practical utilization of the statistical information, and to present it without delay to all concerned. In order to enable the Institute to accomplish this task successfully, the Conference recommended all States to increase the funds placed at its disposal.

The Conference also expressed the opinion that the International Institute of Agriculture and the economic organization of the League of Nations should follow the efforts made by various countries, in order to be able to take, in common accord, any initiative that might be commended by current experience (1).

The 1931 London Conference of Wheat Exporting Countries.

A conference of wheat exporting countries was held in London, from 18 to 23 May 1931. Delegates of Australia, Argentina, United States of America, Bulgaria, Canada, Hungary, India, Yugoslavia, Poland, Romania, and the U. S. S. R. met at this Conference with a view to examining measures relating to the utilization of the enormous stocks of wheat weighing on the market, and to studying the possibility of a common policy of production and distribution.

(1) ACTES, *cit.*, page 286.

This meeting may be considered as an outgrowth of that held in Rome, in which no official representative of the United States took part (1).

Three Committees were appointed by the Conference; one was allotted the task of dealing with the wheat question with a view to marketing the exportable surplus of wheat, another was to present an up-to-date statistical picture of the situation and the third to consider expanding the utilization of wheat (2).

Detailed draft agreements were submitted to this Conference by the Delegation of Poland, and by that of Australia which suggested the creation of an international wheat organization that would fix the annual export quotas for each member country. The participants agreed in principle with the quota system. The American Delegate expressed opposition to any quota system, and recommended curtailment of production as a remedy for the situation (3). The attitude of the United States arose out of juridical and economic considerations. In regard to the juridical considerations the Delegate of the United States drew the attention of the Conference to the fact that the application of a quota system would require an amendment in the United States' Constitution for none of the methods contemplated for the organization and application of a quota system could be applied under the existing legislation of the United States to wheat in private hands.

The three methods considered were the following: (a) application of an export duty on all wheat exported in excess of the established quota; (b) the issue of export licenses up to the limit of the quotas established; and (c) an indemnity fund formed by the deposits contributed by the participating countries and into which would be paid any fines levied in case quotas were exceeded, these fines to be credited to the countries which observe the quotas.

A way out was suggested, namely, the purchase of the exportable surplus by the *Federal Farm Board*, which would naturally have the power of establishing the amount to be exported and the rate of movement. The American delegate observed that, owing to the limitation of the existing appropriation, caused by the necessity for providing for other agricultural needs, it would be necessary for Congress to provide funds for this purpose. It did not seem likely either that the Farm board would accept such a function or that Congress would authorize such a grant.

As regards the United States economic reasons for objecting to an export quota system, the report of the American Delegation, prepared by the *Farm Board*, expressed the opinion that marketing restraints and a permanent programme of wheat holding could not ensure the return of remunerative prices if production remained unrestricted, still less if it increased.

It was for this reason that the Delegation of the United States urged every country participating in the Conference to consider, on the basis of their own internal circumstances the methods most likely to bring supply in line with

(1) *The Commercial and Financial Chronicle*, New York, 23 May 1931, page 3775.

(2) *WHEAT STUDIES*, *cit.*, page 457.

(3) *The Commercial and Financial Chronicle*, *loc. cit.*

demand and to effect, at the same time, a contraction in production and an increase in consumption. The other Delegations did not, however, accept the American suggestion concerning reduction of the sown areas (1).

The Delegation of the U. S. S. R. which in principle agreed to an export quota system, requested that their quota should be based on the pre-war Russian exports, and also that foreign financial assistance be granted for internal wheat stocks.

During the discussion the Delegation of the U. S. S. R. stated that a harvest of 36,500,000 tons of wheat, *i. e.*, 7,000,000 tons more than in the preceding year, was expected in their country (2).

Owing to such serious divergencies of view, this meeting was unable to reach an agreement on the regulation of wheat production and trade.

The Conference at its last session laid stress on certain factors, to which, in its opinion, the phenomenon of low wheat prices could be chiefly attributed: (a) the effects of the world economic depression; (b) the fact that wheat production exceeded the quantities that could be sold at a profit; (c) the absence of sufficient information on wheat movement, the requirements of certain countries, and the quantities which are liable to be placed on the market; and (d) the present uncertain state of the wheat markets.

The Conference, recognizing the serious nature of the world economic depression, believed nevertheless that a substantial contribution to an improvement of the situation could be sought in a clearer understanding of the underlying facts regarding so important a commodity as wheat.

The Conference was of the opinion that, where possible, a reduction in the areas devoted to wheat should be undertaken in whatever way each country considered to be most effective and practical.

It was also felt to be especially desirable that there should be a careful study of means of increasing the utilization of wheat, both for food and for other purposes.

The Conference further expressed the opinion that current information regarding the supply, the demand, and the movements of wheat should be brought together in a way that would assist the wheat exporting countries in the orderly marketing of their surpluses. The Conference therefore decided to establish a Committee of the Conference consisting of one representative from each State participating in the Conference and charged not only with a careful study of all possible ways for the greater utilization of wheat, but also to submit to the Governments of the countries participating in the Conference a definite proposal for establishing, under the supervision of the Committee of the Conference, a Clearing House of information to serve the wheat exporting countries. For this purpose, the Committee was to be empowered to secure from the States represented on the Committee full information as to unloadings and stocks of wheat at all importing points, the areas sown to wheat, and the crop prospects, thereby

(1) WHEAT STUDIES, *cit.*, page 457.

(2) *The Commercial and Financial Chronicle*, *loc. cit.*

assisting the orderly distribution of wheat in world markets. This information was to be provided as far as possible in the form prescribed and at the times fixed by the Committee.

The Conference, convinced that the existence of this standing Committee would develop the contacts already established between the wheat exporting countries, proposed that the Committee should prepare and recommend a draft agenda for a further meeting of the Conference at which the countries represented might enter upon the consideration of such subjects as might then be deemed appropriate.

International Meetings during 1932.

During the second half of 1931 and throughout 1932 the solution of the problem of European cereal surplus continued to be the main preoccupation.

Here the following should be recalled: the Conference of the Agricultural Countries of Central and Eastern Europe (Sofia, December 1931), the meeting of the Permanent Committee of Economic Studies (Warsaw, 24-27 August 1932), the Conference for the Economic Reconstruction of Central and Eastern Europe (Stresa, 5-20 September 1932) (1).

One of the aims of the Stresa Conference, which was of great importance for Europe, was to find at least a partial remedy for the fall in prices by according a supplementary value to the exportable surplus of cereals of Central and Eastern European countries.

On this occasion the opinion was formed that the so-called "preferential" agreements in favour of European cereals probably would not succeed in achieving the most important result, namely, the raising of prices within the producing countries themselves. On the other hand, much hope was placed in a method which would to a certain extent revalorize the whole of the exportable surpluses of the various cereals. It was held that if all exports secured higher prices, the prices within the countries would follow this rise. Hence the idea of a measure which the Conference strove to embody in a draft Convention whereby the cereals would be revalorized through a combination of advantages granted by bilateral treaties reserving the rights of third countries, and by a financial contribution to a special fund. The proposal limited the advantages granted by bilateral treaties, or by collective initiative, to the average quantity exported during the three preceding years (1929, 1930, 1931).

The Conference stressed the importance of this limitation not only for European States but also for countries overseas. Thus, while, it fixed acceptable limits to concessions expected from European countries it guaranteed to overseas producers that the cereal production of Central and Eastern Europe would not increase in the shelter of a regime of unlimited privilege, thus prejudicing the exports of non-European countries. For this reason the Conference expressed the hope that the overseas countries, so greatly interested in the reconstruction

(1) HOUILLIER, *op. cit.*, page 153.

of European economy, when confronted by an action aiming at this reconstruction, and conceived in such a manner as not to neglect their interests, would consider this action benevolently and by abstaining from placing obstacles in its path, contribute their share to this work.

Viewing the world-wide aspect of the cereal problem the Commission judged as very desirable the organization of the cereal market in such a way that disorder in prices and conditions of sale could be remedied. Consequently it expressed a wish that the efforts aiming at creating such an organization should be pursued (1).

The London Monetary and Economic Conference of 1933.

In 1933 attention was turned to the Conference which was to be held in London.

In the annotated draft agenda submitted by preparatory committee of experts to the London Monetary and Economic Conference, emphasis was laid on the wheat problem as part of the general question of agreements between producers, the latter being one of the subjects included in the agenda of the Conference.

This document recalled the fact that the question of regulating wheat production and exportation by means of governmental agreements had been for a long time a subject of international discussion. Among the projects considered, those presented at the London Conference of 1931 engaged more particularly the attention of the experts who now thought that all that remained was to put into practice an export quota system. Some experts adhered to this view, others, on the contrary, thought that this policy could be combined with a concerted limitation of sown areas. The document stated that in this respect the experts had taken note of the interesting suggestion of the Argentine Government proposing a reduction of sown areas in the chief exporting countries, and their limitation in the chief importing countries as a means of absorbing gradually the abnormal stocks accumulated through non resilience in production. The experts considered that the Conference could keep in mind this proposal and examine it and any difficulties of a practical character it might cause, bearing in mind the experience of past conferences, and inviting qualified technical organizations to collaborate with the Governments (2).

From 7 to 10 April a special assembly of representatives of international agricultural organizations was held in Rome with the object of examining the agricultural questions which were to be discussed in London and with a view to co-ordinating all opinions, suggestions and proposals offered in this respect. The following organizations, in addition to the International Institute

(1) REPORT OF THE STRESA CONFERENCE FOR THE ECONOMIC RECONSTRUCTION OF CENTRAL AND EASTERN EUROPE. League of Nations, Document C, 666 M. 321, 1932, VII.

(2) MONETARY AND ECONOMIC CONFERENCE, League of Nations, Document C, 48. M. 18, 1933.

of Agriculture were represented; the League of Nations, the International Labour Office, the International Agrarian Bureau, the International Chamber of Commerce, the International Commission of Agriculture, the Permanent International Commission of Agricultural Associations, the International Parliamentary Conference of Commerce, the International Federation of Agricultural Technicians, the Secretariat of the Agrarian Bloc of Central and Eastern European Countries, etc.

This assembly affirmed in its report that in general it agreed that the wheat question, while representing only part of the difficulties of the agricultural world, was nevertheless fundamental, and deserved special treatment. Reference was made to the efforts to raise the price of wheat by means of international production and export agreements. As already noted, these efforts were not successful, owing partly to technical difficulties, but in particular to the impossibility of securing the adherence of all countries concerned. It was recognized however that these efforts had to be continued.

As regards the proposal made by the Argentine Government at the Conference, the meeting examined the possibility of limiting areas, but the majority of members expressed the opinion that such reduction would meet with very serious difficulties.

Consideration was given also to the "Laur" project, the author of which envisaged the international organization of the trade in wheat by means of an *International Wheat Union*, aiming at increasing and stabilizing the price of wheat (1).

The possibility of realizing such a project was discussed. The advisability of a detailed study of the possibilities in this direction was recognised, and stress laid on the fact that, as an increase in price would benefit directly or

(1) The following are the main lines of this proposal. There would be a union of importing and exporting countries. The countries would agree to allow entry at the normal tariff rate only of bread cereals or flour accompanied by a "safe-conduct" certificate issued by the Union. For all other bread cereals not denatured, a tariff duty of 15 gold francs per 100 kilogrammes would be imposed. A wheat council would be set up which would determine the percentage of the total quota of international exports of bread cereals fixed by the council, to which each country would be entitled. A small percentage, say, 5 to 10 per cent., would remain at the disposal of the council for meeting special needs. The countries which did not become members of the union would not be entitled to a quota. Consequently they would have to pay on all their exports the supplementary import duty of 15 gold francs. This provision would oblige all the exporting countries to become members of the union. The wheat council would establish for the quotas allocated to each country "safe-conduct" certificates which would exempt the merchandise from the payment of the supplementary tariff duty on its import into another country. The Governments would themselves distribute the "safe-conduct" certificates between the exporters. For the rest, freedom of trade would not have to be limited. Without special authorization by the wheat council, a country would be able to export during the course of one month an amount equal to the quota for two months only at the maximum and the quantities exported in advance were not to exceed the quota for two months these are the conditions under which "safe-conduct" certificates would be issued. The wheat council would be able to utilize anew expired monthly quotas which had not been made use of during a period of six months.

indirectly all countries, any such agreement should be founded on reciprocal sacrifices on the part of both exporting and importing countries.

The opinion was expressed that any solution of the wheat problem should be based on special statistical documentation to be prepared for the Conference by the International Institute of Agriculture. This documentation should give particular attention to the tendencies of production and consumption of wheat and other cereals.

Special importance was attached to the question of the reduction of stocks as a means of improving the market situation.

It was recognized that the solution of the wheat problem would be greatly facilitated if it could be studied, before the Conference, by the chief exporting countries, in a practical and agreed manner. Great importance was attached to a preliminary agreement between countries on the measures they would be willing to adopt with a view to limiting production or reducing stocks (1).

The London Conference only dealt with the wheat problem to a limited extent especially because conversations took place directly between interested countries.

The negotiations initiated among experts in May, led to the establishment of a provisional agreement in July, and after final conversations, resulted in the signature of an international wheat agreement which was put into force by the Conference of Wheat Exporters and Importers (London, 21-25 August) (2).

The International Wheat Agreement.

The Secretary General of the London Monetary and Economic Conference on behalf of the Governments of Argentina, Australia, Canada and the United States had invited the Governments of Germany, Austria, Belgium, Bulgaria, France, the United Kingdom, Greece, Hungary, the Irish Free State, Italy, Poland, Romania, Spain, Sweden, Switzerland, Czechoslovakia, U. S. S. R. and Yugoslavia to take part in a Conference to consider the measures which might be taken in concert to adjust the supply of wheat to effective world demand and eliminate the abnormal surpluses which have been depressing the wheat market and to bring about a rise and stabilization of prices at a level remunerative to the farmers and fair to the consumers of bread stuffs.

The International Wheat Agreement resulted from this Conference. According to this agreement the Governments of Argentina, Australia, Canada and the United States of America agreed that the exports of wheat from their several countries during the crop year from August 1933 to July 1934, should be adjusted, taking into consideration the exports of other countries, by the acceptance of export maxima fixed on the assumption that world import demand for wheat would amount during this period to 560,000,000 bushels.

Furthermore they agreed to limit their exports of wheat during the crop year from 1 August 1934, to 31 July 1935 to maximum figures 15 per cent.

(1) DOCUMENTATION FOR THE MONETARY AND ECONOMIC CONFERENCE, cit., p. 45.

(2) HOULLIER, *op. cit.*, page 154.

less in the case of each country than the average outturn on the average acreage sown during the period 1931-33 inclusive, after deducting normal domestic requirement. The difference between the effective world demand for wheat in the crop-year 1934-35 and the quantity of new wheat from the 1934 crop available for export was to be shared between Canada and the United States of America as a supplementary export allocation with a view to the proportionate reduction of their respective carry-overs.

The Governments of Bulgaria, Hungary, Rumania, and Yugoslavia agreed that their combined exports of wheat during the crop year from August 1, 1933 to July 31, 1934, would not exceed 50,000,000 bushels. This undertaking was made on the understanding that the aggregate might be increased to a maximum of 54,000,000 bushels if the Danubian countries deemed that such a supplementary quota was required for the movement of the exportable surplus of the 1933 crop.

Furthermore they agreed that their combined exports of wheat during the crop year 1934-35 would not exceed a total of 50,000,000 bushels, recognising at the same time that the acceptance of this export allocation would not allow of an extension of the acreage sown to wheat.

The Government of the Union of Socialist Soviet Republics, although not being in a position to give any engagement concerning the production of wheat agreed to limit its exports for the crop year 1933-34 to a figure which would be arrived at upon the completion of negotiations with the Government of the overseas wheat exporting countries. It agreed also that the question of their export of wheat during the crop year 1934-35 should form a subject of further negotiations with the wheat exporting countries represented upon the Advisory Committee.

The Governments of the wheat importing countries in signing the final act agreed:

(a) henceforth not to encourage any extension of the area sown to wheat, and not to take any governmental measures which would result in increased domestic wheat production.

(b) to adopt every possible measure to increase wheat consumption and raise the quality of bread.

(c) Having recognised that a substantial improvement in the price of wheat should have as its consequence a lowering of customs tariffs, they declared themselves to be prepared to begin such adjustment of customs tariffs when international wheat price reached an average level to be decided upon and maintained it for a specified period of time (1). It was understood that the rate of duty necessary to assure remunerative prices might vary for different countries, but should not be sufficiently high to encourage their farmers to expand wheat acreage.

(d) Finally having recognised that in order to restore more normal conditions in world trade in wheat, the reduction of customs tariffs would have to be

(1) See page 312, par. (a).

accompanied by modification of the general regime of quantitative restriction of wheat imports they accepted in principle the desirability of such a modification.

The exporting countries recognized on their part that it might perhaps not be possible to accomplish material progress with this modification during the year 1933-34; nevertheless, the importing countries were willing to effect substantial modifications in 1934-35 if world wheat prices showed a distinct tendency to rise in comparison with the average prices of the first six months of the calendar year 1933. The object of these mitigations brought into the various forms of quantitative restrictions, was to re-establish a more normal equilibrium between total consumption and production, and also to increase the volume of the international wheat trade. It was understood that the above agreement was consistent with the preservation of national markets for home-grown wheat cultivated on an area not exceeding the present one. It is evident that weather conditions can cause, from season from season, fluctuations in the quality and quantity of harvests, and, therefore, considerable variations in the proportion between imports and total consumption.

The obligations of the importing countries under this agreement were to be interpreted in the light of the following declaration: " It is recognised that measures affecting the area of wheat grown and the degree of protection adopted are primarily dependent upon domestic conditions within each country and that any change in these measures must often require the sanction of the legislature. The intention of this agreement is nevertheless that the importing countries will not take advantage of a voluntary reduction of exports on the part of the exporting countries, by developing their domestic policies in such a way as to frustrate the efforts which the exporting countries are making in the common interest to restore the price of wheat to a remunerative level ".

Below are given some technical details concerning the part of the agreement referred to in paragraph (c) above:

(a) It was agreed that by the term " international price of wheat " will be understood the gold price c. i. f. and duty free on the world market. This price was to be calculated according to the method followed by the Food Research Institute of the Stanford University of California (see pamphlet IV, No. 8, of its " Wheat Studies "). It is the average selling price of all parcels of wheat of any quality sold every week in all the importing ports of Great Britain.

(b) The Secretariat of the Wheat Advisory Committee set up by the Conference was charged to communicate regularly to signatory Governments, price indices calculated on the above basis.

(c) The average minimum gold price calculated within the above mentioned specifications was fixed at 12 gold francs per quintal (63.02 gold cents per bushel).

(d) This price was to be maintained for sixteen weeks before it became obligatory for the importing countries to proceed with the adjustment of their tariffs.

(e) Each country was to decide for itself the method of tariff adjustments in conformity with stipulated principles and all new important and last-

ing variations in price of wheat were to be followed by a proportionate adjustment of tariffs.

A sub-Committee, in which the delegates of Germany, Australia, Belgium, France, Greece, Hungary, Italy, the United Kingdom, the United States and Switzerland took part, met on August 22 to decide whether, and under what conditions, an organization should be created, in connection with the wheat agreement to be made.

A report was made containing a summary of the exchange of views expressed on the Sub-Committee, and of the recommendations it presented to the Conference concerning the duties, composition and financial organization of the Wheat Advisory Committee, the creation of which was proposed.

It was recognized that the contemplated organization could only have a temporary character as the agreements, by virtue of which it was to be created, were made with a view to dealing only with the immediate difficulties of the situation. The task on hand was not the creation of a permanent committee charged with the supervision of wheat production and trade, but simply of a committee charged with the supervision of the functioning and application of agreements which were to be made. This committee was to have, above everything else, an advisory character, and was to supply the representatives of Governments with the possibility of following the functioning of various agreements with the help of the most exact data that could be secured. It could take no decisions unless in cases definitely indicated in the agreements.

The terms of reference of the Committee were limited to these tasks and could not be extended to questions concerning the setting up of statistics beyond the price indices which the Committee was to communicate regularly to the Governments signatory to the agreement.

In order to avoid any duplication of work the Consultative Committee was to exercise its functions in close collaboration with the Economic Organization of the League of Nations and the International Institute of Agriculture.

As the work of the Committee was to have a practical, rather than a political, character, the number of its members was to be restricted.

It was recognized that the chief exporting countries, *i e.*, Argentina, Australia, Canada and United States were to be represented as well as the Danubian Countries and the U. S. S. R. It was considered essential that the importing and the exporting countries should be represented on the same footing.

A suggestion was made that they should be represented by two or three members designated by the Economic Committee of the League of Nations. However, after a discussion in the Sub-Committee, it was found preferable to form the Committee of an equal number of representatives of exporting and importing countries. Granted this reservation the Sub-Committee deemed it advisable to authorize the Advisory Committee to increase the number of its members if circumstances seemed to warrant such a course.

The importing countries represented could be chosen along one of the following lines; either the importing countries taking part in the Conference

would make their choice during its session or this choice could be left to the Economic Committee of the League of Nations. It was decided to leave the decision to the importing countries.

In any case, the members of the Advisory Committee were to be appointed as representatives of States and not as individuals.

The Committee would be authorized to convoke a general Assembly of the signatory countries if it deemed it necessary.

Various suggestions were made on the subject of the chairmanship of the Advisory Committee. Some members were of the opinion that the League of Nations could invite a person of recognized standing and unquestionable impartiality to assume the functions of chairman. Others considered that, owing to the exceptional importance of the wheat question to exporting countries, it would be advisable to select the chairman from among their representatives. Finally, it was decided to leave the choice of chairman to the Advisory Committee itself which could be authorized either to elect from amongst its members, or, if it deemed it advisable or desirable, to invite from outside a person of recognized standing.

As regards the Committee's finances, it appeared to the sub-Committee that if all expenses not absolutely necessary were avoided, the annual budget of the Committee would not exceed 60,000 gold francs. It was proposed that contributions be made by the countries signatory to the wheat agreement on the basis of four gold francs for each 100,000 quintals of the average annual quantity of wheat they produce, and an additional eight gold francs for each 100,000 quintals of the average quantity of wheat they export. The averages were to be calculated for the period to be adopted as basis.

London was to be the seat of the Secretariat of the Advisory Committee, but it would hold its meetings in such localities as it considered to be appropriate.

The countries taking part in the Conference consented to the creation of an "International Wheat Advisory Committee" charged with following the application, and the functioning of the agreement. The functions, organization and financial means of the Committee were established on the basis of the report examined above.

As soon as the putting into force of this agreement was settled, discussions took place concerning quotas not regulated by it, *i. e.* the distribution of quotas amongst the countries of Central and Eastern Europe, and the determination of the export quota of the U. S. S. R. The latter requested that its quota should be fixed on the basis to its pre-war exports, while the overseas exporting countries were of the opinion that quotas should be based on quantities exported during recent years.

Finally it was decided to fix this quota at 37,000,000 bushels, a quantity reached by Russia during 1926-27, 1930-31 and 1931-32.

Other obstacles to the execution of the agreement appeared later, chiefly arising from the failure of the world demand for wheat to come up to the level envisaged at the time when quotas were fixed, and to the difficulties raised by countries concerned in the execution of the clauses of the agreement.

One factor which made the situation very difficult was constituted by the fact that Argentina, having found its 1933-34 harvest extremely abundant as compared with that of other American producers, requested a supplementary quota which was granted by the countries concerned, but it was not possible to agree upon the size of this increase.

At its session of May 1935 the Committee again examined the conditions of prolongation of the agreement. This was discussed at several meetings, but it was realized that for the moment there was no possibility of coming to an understanding (1).

The agreement has thus been terminated. The Committee alone has continued to act as a consultative and liaison body. This was prolonged for the first time until 31 July 1936 (2), a second time until 31 July 1938 (3), and again recently for a further period of two years.

During the existence of the agreement there was an improvement in the situation, due primarily to a series of bad harvests in several important exporting countries. In the United States for example, where there had been a harvest of 756,926,231 bushels in 1932, the production in 1933 was 551,682,949 bushels and in 1934, 525,657,811 bushels. In Canada the figure for 1933 was 281,893,063 bushels and for 1934, 295,848,823 bushels to be compared with 443,059,323 in 1932. In Australia the figure for 1933 was 177,336,898 bushels and for 1934, 133,392,150 bushels, against 213,925,677 in 1932 (4).

The exportable stocks of the four large exporting countries which had reached 609 million bushels in 1932-33 decreased to 564 million bushels in 1933-34, and to 371 million bushels in 1934-35, then falling further to 245 million bushels in 1935-36, and in 1936-37 to 88 million bushels.

During the year 1936-37 the situation changed. According to estimates made last March the producers of surpluses had from the 1937 crop an exportable surplus (648 million bushels) which was ample to cover the forecasted world demand (520 million bushels) and thus for the first time for many years a part of the exportable surplus will be kept in reserve and carried over to the coming season. Thus it is forecasted that the exportable stocks which had fallen in 1937 to their lowest level of 88 million bushels, will on 1 August 1938 be about 216 million bushels, an amount which has been regarded as about equivalent to that estimated to have been normal before the great wheat crisis. A slight modification of this forecast has been confirmed by the figures published during the last months of the season (5).

(1) VON DIETZE, *Preispolitik der Weltagrarkrise*, Berlin 1936, page 240.

(2) *The Commercial and Financial Chronicle*, op. cit., 1 June 1935, page 3644.

(3) *Idem*, 25 July 1936, page 507.

(4) *International Yearbook of Agricultural Statistics 1937-38*. International Institute of Agriculture, Rome 1938, page 257. [The figures, given in quintals, have been converted into bushels].

(5) *Monthly Crop Report and Agricultural Statistics*. International Institute of Agriculture, Rome, March and June 1938.

World exportable supplies, and requirements and stocks of wheat (1).

Season	Exportable Supplies			Net Imports			World exportable end of season stocks (3)
	Aggregate excluding U. S. S. R.	U. S. S. R. exports	Total	European countries	Extra european countries (2)	Total	
(Million bushels).							
Average 1926-27/1930-31 . . .	1,090	33	1,123	620	175	795	430
1931-32	1,256	65	1,321	615	194	809	514
1932-33	1,218	17	1,235	449	180	629	609
1933-34	1,074	35	1,109	395	150	545	564
1934-35	896	2	898	358	175	533	371
1935-36	687	29	716	352	150	502	245
1936-37	679	4	683	438	164	602	88
1937-38:							
Estimate March 1938 . . .	696	40	736	405	115	520	216

(1) See note 5 page 315. — (2) Approximate calculation representing the difference between world net exports and net imports of European countries and taking also account of differences in quantities afloat at the beginning and the end of each year. — (3) End-of-season stocks in the four principal exporting countries, minus the minimum carry-over, and floating supplies.

F. ARCOLEO.

CO-OPERATION IN CHINA

SUMMARY: Introduction. — The Ts'ing-Hui. — History of the co-operative movement in China. — The Chinese law on co-operation. — The various types of co-operative organisations. — Co-operative credit societies. — Other forms of co-operative societies. — Conclusion.

Introduction.

China is essentially an agricultural country: 74.5 per cent. of the population are engaged in agriculture, although 32 per cent. only of the total area is cultivable. There is in consequence an extremely high density of rural population, in Northern China 240 inhabitants to the square kilometre and in the eastern part of Central China rising to 324. The rural population thus forms the greater proportion of the nation, and constitutes the major problem of Chinese national life.

In 1931 there were 77,200,000 hectares under cultivation, with a total number of 58,570,000 small farming families. Hence only a very limited area is available for each family, and in fact the parcelling out of the land has been carried to the extreme limit. The prevailing type of farm is the small or very small holding, the return being correspondingly small. This tendency to fragmentation of the soil is to a large extent counterbalanced by the system of family farming; all owners of plots who are members of the same family work under

the direction of the head of that family. While this institution increases the economic security of the small holder who is a member of such a family (1) there is the corresponding drawback that the land is concentrated in the hands of a small number of large families. As a result, 55 per cent. of the families tilling the soil do not own the smallest plot of land. They are for the most part tenants and, in a less proportion, farm workers.

The distribution of the land according to the system of farming is shown in Table I (2).

TABLE I. — *Distribution of the land according to the farming system.*

Countries	Owner farming	Mixed farming (*)	Tenant farming
Northern China	76.5	13.4	10.1
Eastern Central China	48.2	21.3	30.5
Interior of China	51.7	22.1	26.2
Average for all China	42.0	22.5	35.5

(*) By mixed farming is here understood farming of land of which part is the property of the farmer while the remainder is rented by him.

Tenure by lease is widely prevalent. It is found under various forms, such as heritable leases, temporary leases and leases granted on a labour rent. Although the terms of leases are very various, it is never open to the tenant farmer to sell or mortgage the land as a means of raising money for himself.

Moreover the production is not of a kind to be used as security for a loan, consisting mainly of crop intended for human food—livestock farming being carried on to a very limited extent only. Hence the tenant has no chattels to give in pledge.

The tenant farmer is thus in an unfavourable position in respect of obtaining credit. Is he any better off in respect of his methods of cultivation?

Although his work is exceedingly hard, the yield of the land is not in proportion to the attention he gives to it—which is, indeed of a somewhat elementary character. Irrigation, though widely employed especially in the plain, is inadequate: modern methods of cultivation are unknown, selected seeds are not in use and there is practically no utilisation of other than natural manure.

Hence, in spite of the intensive labour, in spite of the well known fact that the soil yields two crops per year and even more, in spite of the frugal habits

(1) At least where the patriarchal system has not yet weakened.

(2) CHEN, Dr. Yin-Kwong. Die landwirtschaftlichen Genossenschaften in China und die Anwendbarkeit des Systems des deutschen landwirtschaftlichen Genossenschaftswesens auf ihre Fortbildung (Beiträge zur Genossenschaftskunde, Heft 5). Hans Buske Verlag, Leipzig, 1937, p. 15.

of the rural class, the food requirements of the population are frequently not covered by the national agriculture.

As a general rule the small tenant farmer works from morning to night in order to be able to pay his rent and his taxes. Once these are paid, he has not enough left for a livelihood. He finds himself forced to borrow and in the absence of public credit institutions, he usually borrows from the large landowners or from tradesman or dealers; who, as he cannot offer any chattel pledge or pledge of real property, demand usurious rates of interest, up to as much as 45 per cent. per annum. The position of the small landowner, although somewhat better in that he can mortgage his land and can in any case get assistance from his family, is none the less far from satisfactory.

The improvement of the social and economic situation of the rural population hence forms the main task of agricultural co-operation in China. It should be its function to come to the help of owners and tenants of small farms, enabling them to improve their standard of living and to share in all the advances in technique which, apart from co-operation, would perforce be confined to the large farms.

There is nothing in the actual nature of the small farm holding which is contrary to the realisation of such improvement. Certain types of farm machines can be utilised jointly by several farms, the cultivators agreeing to use them in turns. In consequence, certain forms of technical progress can be achieved by the small farm. Two conditions must however be realised: the small farmers must not be left to their own efforts in an enterprise which is beyond their individual powers, and, secondly, vocational education must be available so that they may be in a position to take advantage of the general progress achieved in science or technique. As there are still very few schools of agriculture in China, it becomes incumbent on the co-operative societies to diffuse vocational knowledge, as well as to establish systematic collaboration among farmers.

For the relief of the small farmer in China the abolition of usury is essential. In the rural areas there are no agricultural credit banks or funds which will advance to the peasant the money he needs. The large landowners, who are often at the same time dealers or traders, have resources of their own, or can easily obtain credit, at a low rate of interest and on favourable terms, at the Chinese urban banks or from the agencies of foreign capitalists. On the other hand, apart from an exception to be discussed later, the small farmers are reduced to borrowing from traders and large landowners, who take advantage of their difficulties. The remedy for this deplorable situation is to be found only in the co-operative credit society. Such societies can offer loans at low rates to their members and can at the same time encourage the habit of saving, which is often absent.

The small cultivators also need support and assistance in the matter of purchases and sales. At present they are frequently cheated at the moment of the sale of their products, and they also suffer by reason of the fact that in order to pay their debts they are obliged to sell immediately after harvest, at a time when the market is glutted and prices are accordingly low. Advantage is

taken of their inexperience when buying on the market the foodstuffs and farm requisites they may need. Hence purchase and sale co-operative societies and co-operative distributive societies are essential to the small cultivator.

Finally, valuable work may be done by co-operation in raising the intellectual and moral standard of the rural population and in the education of the masses. In the rural districts, the number of illiterates is still very high, hygiene is elementary and there is a high mortality rate, while ignorance and thriftlessness are widespread. These evils cannot be eliminated by means of co-operation alone, but it can contribute in a large measure to their disappearance.

The Ts'ing-hui.

It would however be a mistake to conclude from what has been said so far that no form of mutual assistance was known in China up to the time when the system of European co-operation was first introduced. On the contrary in this country of ancient civilisation, a certain type of co-operation has for a long time existed under a form which developed out of national habits of life and corresponds to the Chinese mentality. The beginnings are to be traced back to the dynasty of T'ang (618 to 907 A. D.); the system continues to function and to flourish in our own time under forms which differ in detail but which have many characteristics in common. These institutions are based on good fellowship and solidarity of interests and their object is rather to assist an individual in need than to secure a profit to those who combine for his assistance (1). They exist only for a time and do not in any way undertake the training of their members, whether in development of their vocational capacity or in formation of habits of thrift. They certainly are not co-operative societies in the Western sense of the word, and Mr. C. F. STRICKLAND goes so far as to say (2) that, at best, they are philanthropic associations and not co-operative organisations.

Various names are given to these associations in different parts of the country, but such names are always compounds formed with the substantive *Hui*, which means association. In Shantung and in the northern part of Kiang-Su they are called by a name which very happily expresses the character of this kind of association and which has to some extent entered into general use. They are called Ts'ing-hui, which means "grouping of friends to form an association".

Three types may be distinguished in the Ts'ing-hui: the Luen-hui, the Yao-hui and the Piao-hui. The Luen-hui is the simplest and most ancient type of these associations and also the most widely diffused throughout China: a very clear

(1) The basis is at least in principle as stated; it will be seen later that abuses have crept into this institution.

(2) STRICKLAND, C. F., *Rural Finance and Cooperation*, Chung Hwa Book Co. Ltd. Shanghai, China [1936], p. 14.

description of this type is given by Dr. Peo YU (1) to whom we are indebted for all the particulars relating to these associations:

"It is a kind of credit and debit not as between two parties, but between a variable number of associated persons each of whom is in turn lender and borrower.

"If any individual requires a hundred dollars (2), instead of borrowing from a bank, which is not always practicable, or from some rich person, which is irksome, it is open to him to take the initiative in the formation of a Ts'ing-hui by approaching persons of his acquaintance, say, to the number of ten.

"The first year, the originator of the Society will receive from his ten contributing fellow members the sum of a hundred dollars which he will repay to them within a given time and in a fixed order by means of yearly instalments, that is to say, becoming in his turn a contributing member from the second year.

"The second year it will be the second member who will not pay the contribution and who will receive the sum of a hundred dollars as the total of the contributions of the other members of the Society. In the third year, it will be the third member and so on up to the last. The members continue to pay their contribution yearly over the whole period necessary for each one to receive in his turn the same sum and to repay it. The Society lasts as many years as there are members.

"This association ensures to each of its members not merely the repayment of his capital and interest, but the use of a sum equal to that which they decide to constitute at the outset.

"In this type of association, the capital constituted by the payments remains invariable during the whole existence of the association. The calculation of the contributions of the members is very simple as these contributions are variously established according to the date of entry into possession of the capital. The repayments are made at long term, one or two per year. The number of members does not exceed ten. In accordance with the hospitable customs of the country and the much easier conditions of life in the country, the originator often invites the members to his house and offers them a banquet on each occasion." (3).

The Chinese peasant or family farmer who, like all peasants, is conservative in his outlook, is attached to this institution of Luen-hui, which is simple and the principle of which is readily grasped.

(1) YU, Peo: *Associations de crédit mutuel rural et associations similaires en Chine* (Ts'ing-houei, Paris, F. Leviton et C.ie, 1936, pp. 10-11).

(2) The Chinese dollar was equivalent in 1936 to about a shilling.

(3) YU, Peo, *loc. cit.*, p. 20. The question of the banquet offered takes a foremost place in the constitution of the Ts'ing-hui. Space does not allow of entering into this matter, so characteristic of the customs of the country; but it is an aspect which it is impossible to neglect and which may for example exercise a decided influence on the number of persons called upon to become members of the association.

In the towns, the most widely diffused types are the Yao-hui and the Piao-hui; this latter is the most recent, also the most complicated, of the types of Ts'ing-hui. These however are institutions of a speculative, almost gambling type. In the Yao-hui, the order in which the members recover their contribution is fixed by drawing lots or throwing dice, and in the Piao-hui this order is fixed according to the lowest bid made by the members who are most urgently in need of the capital. The member who is ready to sacrifice the largest fraction of the sum to which he would have a right wins the day, thus securing sometimes to the members of the association an interest rate as high as that charged by a money-lender (1).

These latter types diverge accordingly from the true spirit of the Ts'ing-hui which is however found in the Luen-hui. This last, although not perfect, renders great services to the country districts. It is usually constituted in the spring and in the winter, that is to say, at the moment when it is essential to meet the expenses occasioned by the purchase of seeds, and when one must repay the debts contracted in the course of the year and for which the term has just expired. Sometimes however the Ts'ing-hui is also founded with a view to a future contingency so as to be in a position to meet a need to some extent foreseen.

Sometimes, also, the sum in question is collected without any idea of repayment, as for instance to help an orphan left destitute, a promising student whose father cannot meet the cost of the education, or a person in distressed circumstances. There are also associations formed for the purpose of collecting the funds required to meet joint expenditure, such as that for protection of standing crops from marauders, watching of herds and flocks, protection of villages against bandits and thieves, repair of bridges and roads.

"Applications to the Ts'ing-hui are most frequently made by small farmers and needy persons. In the case of the former, a small proportion of the sums borrowed by means of the Ts'ing-hui is assigned to the working capital of the farm; in that of the latter, the loans are intended to meet the requirements of daily life.

"As regards the peasants in better circumstances, their economic position is already more satisfactory. When these form a Ts'ing-hui, it is with a view to improve farming conditions or to purchase land. The sums for which appli-

(1) These abuses justify the severe criticism made by Mr. C. F. STRICKLAND (*loc. cit.*, p. 15) on the types of Ts'ing-Hui. "Other types of Hui are worse. The group may agree that each of them will pay a contribution of equal amount into a common fund in each month for as many months as there are persons in the group. The organiser of the Hui takes an agreed part of the sum thus collected, and the remainder is handed over to a different member in each month, until every member has received it. The member may be chosen by drawing lots, or by accepting the bid of that person who agrees to receive the lowest amount in lieu of the whole sum. The money is thus either given to a man who may not have needed it in that month and who will therefore waste it, or (by the bidding system) to a person who needs it so urgently that he will make a great sacrifice to obtain it. The former method is gambling, the latter simply usury of the cruellest kind. This kind of Hui is therefore an evil institution, and if it were possible to suppress it, it should be suppressed."

cation is made will be devoted either to the farming requirements or to the building up of capital in land.

"As a rule, when the application to the Ts'ing-hui is for a sum of 100 dollars or less, it is required for personal expenditure. Sums of 100 to 120 dollars are used equally for personal consumption and for meeting farm expenses. A loan of 200 to 400 dollars is made for the most part for the purpose of covering farming costs. A sum above 400 dollars, and especially if it exceeds 600 dollars, is nearly always placed to capital in land." (1)

The different sums procured by means of the Ts'ing-hui are in relation to the areas in peasant ownership,¹ they represent as a rule a tenth or less of the value of the land.

50 per cent. of the associations have a capital of less than 100 dollars. "Although only some 40 per cent. of Ts'ing-hui associations are concerned with agricultural credit, these 40 per cent. represent by themselves the greater proportion of the sums lent by the Ts'ing-hui, since these 40 per cent. of the associations own a capital varying from 200 to 600 dollars and even more. In consequence, it may be concluded that more than half the capital lent by the Ts'ing-hui is devoted to farming purposes." (2).

In spite however of the advantages offered, even the best type of Ts'ing-hui presents disadvantages also. As regards the borrower, even one who has a large enough circle of well-to-do friends, and who offers the necessary guarantees, will be successful in constituting a Ts'ing-hui only at the end of a certain time, after lengthy negotiations with these friends. An individual whose situation is not so favourable can obtain credit for his more pressing requirements only by applying to money-lenders. In the Luen-hui, since the order of repayment is fixed, once for all, it follows that if a member has urgent requirements, it may well be that this need does not coincide with the period in which he is to receive in his turn the capital due to him (3). On the Yao-hui and the Piao-hui, a verdict has already been passed.

In any case this system, which was adequate so long as conditions of existence in China remained as in the past, cannot satisfy modern requirements and fulfil the functions of co-operation as indicated, at the outset of this article. Up to about one hundred years ago, the rural population of China was living nearly as it had lived for thousands of years, a simple frugal life inspired by ancestral traditions, and in economic conditions which seemed immutable. These rural dwellers produced all that they required to meet their own needs; their contacts, even with other parts of China, were, so to speak, nil; the problems of international trade and of capitalism were for them non-existent. To-day all this is changed. The income of a family farming a tiny holding used formerly to be supplemented by the sale of the products of small home industries, which

(1) YU, Peo, *loc. cit.*, pp. 32-33.

(2) YU, Peo, *loc. cit.*, p. 35.

(3) It is true that sometimes change of order is allowed with another member who will be ready to waive his turn for a consideration.

now have to meet the competition of manufactured articles. These latter are either manufactured cheaply by foreigners established in China, working with foreign capital but using Chinese labour and raw materials, or imported under a system of low customs charges and transported along the coast or on the Chinese rivers by means of foreign vessels. As regards agricultural products, the opportunities offered by international trade have called into being a special class of middlemen who make it their business to buy up raw materials in the countryside and to sell foreign commodities there. These middlemen are in touch with the local traders whom they finance from their own funds and who are thus enabled to take advantage of any straits in which the farmers may find themselves to buy their products at low prices or to make them advances on their crops on very harsh conditions. On the other hand, new requirements have sprung into being,—cigarettes, foreign textile goods, foreign oils, etc.—; hence the possibilities of spending more and the temptations to do so have increased at the same time as the possibility of satisfying such requirements is shrinking. A yet more difficult situation has thus come about for the farmers and a still greater risk of indebtedness. So it may well be that a temporary chancey inadequate system like the Ts'ing-hui will no longer meet requirements, although it is still very widespread throughout China. In consequence, the necessity of an improved system of mutual aid has been recognised.

History of the co-operative movement in China.

The originator of the co-operative movement in China was Hsüeh Hsien-chao (1878-1927) who had made a study in Germany of the organisation of the Raiffeisen and Schulze-Delitzsch banks. On his return to China, he founded in 1919 at Shanghai the first co-operative credit society, published the first review on co-operation and organized an association of co-operative studies. This work had however no lasting outcome, and Hsüeh died in 1927 without having realised his object, which was to establish co-operation on a sound basis in China. This first phase was mainly one of preparatory work, carried out for the most part by students, teachers and employees who endeavoured to spread co-operative ideas through the country. Some co-operative organisations were founded during that period (1919-1923), study groups, co-operative credit societies, consumers' co-operative societies and producers' societies. These existed in the provinces of the Yang-tsze-Kiang, at Shanghai and at Peking, but were shortly afterwards dissolved for political reasons. The only society which survived up to 1928 was the co-operative credit society at Shanghai. This epoch with its revolutionary disturbances was certainly far from propitious to the peaceful development of an initiative of this kind, and the movement was also affected adversely by the fact that it did not take national conditions sufficiently into account and that it was put forward mainly as a foreign system.

The progress of the second phase of the co-operative movement (1924-1927), which was definitely agricultural, was altogether more satisfactory. This time the point of departure was a concrete situation calling for measures adapted to the conditions of China at the actual moment. The initiative came from the

China International Famine Relief Commission (C. I. F. R. C.), a body set up in 1920, at the time of a great famine which ravaged Northern China and especially the province of Ho Peh, by a group of Chinese and foreigners who were endeavouring to come to the help of the population in distress. It was considered by this Commission that the best method of achieving this object would be to establish co-operative credit societies of the Raiffeisen type, and following on the necessary work of enquiry and preparation, recognition was accorded, at the end of 1924, in the Ho Peh province to the two earlier co-operative societies. Their organisation had been found to be sufficiently advanced and in February 1924 the Commission granted these societies the necessary credits. In 1925 this same Commission set up a Committee for agricultural improvement which was responsible for the organisation and supervision of the co-operative societies and also for the granting of loans. A co-operative paper was published regularly and a course was organised for the managers of rural co-operative societies. Co-operation developed slowly but steadily under the aegis of the C. I. F. R. C. Committee, but in Ho Peh only. The number of societies, which were exclusively agricultural co-operative credit societies, rose from 8 in 1923 to 561 in 1927, the total membership from 256 to 13,190. During the same period, the total owned capital of the societies rose from 286 Chinese dollars to 85,110 dollars.

The practical work accomplished by the C. I. F. R. C. during this period was completed by the enquiries into the various types of co-operative societies carried out by the University of Nanking, but also financed by the Commission.

During the first and second phases of the co-operative movement the initiative was mainly due to the intellectual classes, to research institutes and to a philanthropic institution. In the third phase (from 1928) on the contrary, the political element was introduced. In 1925, the second Congress of the Kuo-min-tang had already decided to encourage agricultural co-operation. The following year a scheme was announced of State aid for the organisation of rural co-operative societies. At the time however the authority of the Government extended only to the province of Kwang-Tung, and it had no power to put the scheme into execution. It was only from 1928 that, in consequence of the success of the National Revolution, it became possible to proceed with the programme of restoration of agricultural prosperity, operating this time in the province of Kiang-Su in which Nanking, the new capital of China, was situated. The movement spread thence to other provinces. Subsequently, the provincial Governments of the provinces of Shantung, Ho Peh, Hu Nan and the administrations of the towns of Shanghai and of Hankow issued instructions on co-operative organisation. In 1931 the Ministry of Industry published provisional regulations for agricultural co-operative societies. In 1932, after the great flood of the Yang-tsze-kiang, the Government were compelled to place at the disposal of the provinces of Anhwei, Kiang Si and Hu Nan the sum of 2,000,000 dollars which were distributed by the C. I. F. R. C., through co-operative credit societies established *ad hoc*. Two agricultural banks had been founded previously; the Agricultural Bank for the province of Kiang Su and the Chinese Bank of Agriculture and Industry of Hang-Chow: in 1933 the Agricultural Bank

for the four provinces of Hu Nan, Hupeh, Anhwei and Kiang Si was founded with capital supplied by the Central Government and with the duty of promoting co-operation. The movement then spread throughout the whole of China and finally found embodiment in the law on co-operation enacted on March 1 1934 by the Central Government and coming into force on September 1.

The Chinese co-operative societies are almost exclusively agricultural co-operative societies. Although co-operation in the proper sense of the term is so recent in China, the number of co-operative societies is already fairly large. Table II shows the development of the co-operative movement from 1928 to 1934 (1).

TABLE II. — *Development of the Co-operative Movement from 1928 to 1934.*

Year	Province of Ho Peh		Other Provinces		Total	
	Number of societies	Member-ship	Number of societies	Member-ship	Number of societies	Member-ship
1928	604	15,301 (1)	306	10,971	913	26,272
1929	818	21,934 (1)	668	21,175	1,486	43,109
1930	946	25,727 (1)	1,226	38,280	2,172	67,007
1931	903	25,633 (2)	1,536 (2)	64,700	2,439	90,333
1932	876	24,217	2,979	126,995	3,855	151,212
1933	—	—	—	—	6,946	233,541
1934	—	—	—	—	(3) 9,948	(3) 373,856

(1) Figure of Kiang Su only. — (2) Estimate. — (3) Statistics of the end of July of the year in question.

As appears from the above table, the total number of co-operative societies was, in 1929, only 913. By the month of July 1934, this figure was multiplied by ten and the membership had increased thirteen times. For the end of 1934, the Peoples' Year Book quoted by Dr. CHEN gives 14,649 societies with an aggregate membership of 557,521. The co-operative societies are distributed as follows: co-operative credit societies 67 per cent., societies exercising several co-operative activities 9.3 per cent., farm production co-operative societies 8.6 per cent., co-operative societies for sale and transport 7.2 per cent., and others 7.9 per cent. According to C. F. STRICKLAND (2) in March 1935 the number of these societies was 15,000 and at the end of 1936 as many as 30,000.

(1) See: CHEN, Dr. Yin-Kwong, *loc. cit.*, p. 38.

(2) STRICKLAND C. F., Co-operation in China, Year Book of Agricultural Co-operation, 1937,

The Chinese law on co-operation.

The Chinese law on co-operation consists of 9 chapters and 76 articles. Chapter I contains the provisions (arts. 1-16) relating to the legal situation of the co-operative societies and the form of liability adopted. Under the terms of the law are considered as co-operative societies, societies based on the principle of equality and of mutual aid, the purpose of which is to further, by means of any business activity pursued in common, the economic interests or the improvement of the standard of living of their members. They may exercise activity in the spheres of credit, of industry, agriculture, consumption, insurance and in other directions also. The liability of a Co-operative Society may take one of the following three forms: limited liability of members to the extent of the amount of their subscribed capital, limited liability with the obligation, if need be, to meet payments higher than the amount of their subscribed capital, and unlimited liability.

Chapter II contain regulations (arts. 7 to 9) on the constitution of co-operative societies. A society must have a membership of at least seven persons. It must have rules or terms of constitution and directors and a body of supervisors. Co-operative societies are exempt from income tax and from taxes on turnover. They are expected to effect registration with the competent authorities within the space of one month.

Chapter III of the law deals with the conditions of membership, shares subscribed by members and with the division of profits (arts. 10-22). Members of a co-operative society must have attained the age of 20 years and must have a legitimate and regular occupation. If they are already members of a co-operative society with unlimited liability, they cannot at the same time belong to other societies of the same type. In such societies conditions of admission are stricter than in the case of other societies. As regards members' shares, each member shall hold at least one share, but no single holding shall exceed 20 per cent. par value of the total capital stock; in consumers' co-operative societies, each member may hold at most ten shares only.

The par value of a share must be at least two dollars but cannot exceed 20. When a body corporate desires to become a member of a co-operative society the extent of its participation in the share capital is established by the competent authority. The dividend cannot exceed ten per cent. per annum, and may be passed on account so as to be deducted from the share if not fully paid up by the member. No transfer of shares is possible without the consent of the society, nor can a share be used as a guarantee of members' debts. On each division of profits, the society must pay in 20 per cent. to the reserve fund, 10 per cent. to the emergencies fund and 10 per cent. for the emoluments of members of the administrative council and office staff. After deduction of the percentages already mentioned, the profits and surpluses of the society shall be distributed to the members in proportion to the volume of their transactions with the society. Articles 23-28 treat of the methods followed in regard to voluntary resignation or compulsory withdrawal of members.

Chapter IV contains the provisions (art. 29-42) relating to the directors, the Supervisory Committee and the office staff. The minimum number of directors and of supervisors shall be in general three.

Chapter V (arts. 43-52) deals with meetings of the co-operative society and the methods of summoning these: Chapter VI (arts. 53-64) deals with liquidation and procedure in the event of insolvency of a co-operative society.

In Chapter VII (arts. 65-71) the law treats of federations or unions of co-operative societies which these latter may form among themselves on account of geographic or business conditions. These unions may be composed of several co-operative societies or even of several co-operative unions. For any given locality or branch of activity there can only be a single co-operative union at one and the same time. The representative general meeting of a co-operative union shall be constituted by representatives of the co-operative societies or unions belonging to the union in question. The number of these representatives may be established in accordance with three different criteria: either, (1) according to the number of members of each society in relation to the total number of the members of all societies belonging to the union; or (2) in accordance with the total capital stock of each member society in relation to the total capital-stock of all member societies; or (3) according to the total amount placed at the disposal of the union by each of the member societies. Unlimited liability is inapplicable to unions of co-operative societies.

Chapters 8 and 9 contain respectively additional penalties and provisions.

The various types of co-operative organisations.

In view of the economic and social conditions of China, co-operation as it exists in that country up to the present has a special character:— it is primarily an institution for farmers' relief and assistance. The organisation is neither uniform nor rigid; the funds at the disposal of the societies may come from benevolent institutions, such as the China International Famine Relief Commission, or from agricultural banks, or from provincial governments. Both the unions of co-operative societies and the co-operative societies properly so termed have a structure which can be adapted to circumstances. In view of the difficulties encountered by numerous tenant farmers in borrowing capital sums because of the inadequacy of the guarantees they are in a position to offer, the agricultural co-operative credit societies are much more important than the others.

CO-OPERATIVE CREDIT SOCIETIES.

According to the statistics of the Ministry of Industry, during the years 1933-34, of 8,740 Chinese co-operative societies, 7,430 were co-operative credit societies and of these, 50 only were urban co-operative societies. The 7,380 co-operative societies for agricultural credit formed in consequence 84.5

per cent. of all the existing co-operative societies. These may be grouped as follows:—

TABLE III. — *Distribution of the Co-operative Credit Societies throughout China.*

Locality	Number of societies	Number of members	Total value of the shares subscribed by members (in \$)
PROVINCE.			
Anhwei	2,402	66,604	74,740
Ho Peh	1,382	(1) 23,753	(1) 52,491
Kiang Su	1,159	30,892	526,851
Che Kiang	858	21,626	85,584
Kiang Si	400	11,355	24,480
Shantung	397	11,513	139,970
Hu Peh	328	13,916	20,606
Hu Nan	282	6,950	16,755
Ho Nan	154	6,486	22,440
Others	18	—	—
Total	7,380	193,095	960,017
TOWNS.			
Nanking	1	83	500
Shanghai	2	87	50,000
Hankow	47	899	1,042
Total	7,430	194,164	1,011,559

(1) Figures relating only to the 952 co-operative societies under the management of the C.I.F.R.C.

In general the rules are the same for all the co-operative credit societies, the administrative organs include a Council of Directors (usually composed of three members), a Supervisory Council (also consisting of three members) and the general meeting. In the co-operative credit societies the directors usually undertake the management. With some exceptions the members of the two councils give their services free.

The subscribed shares form only a small proportion of the capital required for the business activity of the co-operative society, except in the provinces of Kiang Su and of Shantung, where the economic situation is better than in the other provinces. On the average, the value of a subscribed share is five dollars; sometimes it is only one dollar (1). For this reason the co-operative societies obtain credits (sometimes from the C. I. F. R. C. and in general from the agri-

(1) Hence the value of a share may sometimes be lower than the minimum established by law.

cultural banks) at low rates; these credits are repaid after harvest. The loans most frequently made are those from six months to one year, at least in the Ho Peh province, the only province for which data are available. The duration of the loan depends on the reason for which it has been contracted, as appears from the figures shown below. The sums borrowed have always been utilised in Ho Peh for purposes not requiring long term credit.

TABLE IV. — *Utilisation in percentages of the sums borrowed (in Ho peh).*

Repayment of debts	24.12	per cent.
Purchase of livestock	16.55	»
Fodders	12.77	»
Implements	8.03	»
Repair of buildings	7.11	»
Seeds	5.19	»
Repurchase of lands	3.53	»
Fertilisers	5.72	»
Land clearing	3.24	»
Irrigation	1.79	»
Weddings and funerals	1.50	»
Other purposes	10.35	»

The turnover of the 1,513 co-operative credit societies which have supplied information totalled 1,219,953 dollars in 1933; hence each of these societies had an average turnover of 806 dollars.

The members of the co-operative credit societies are not all farmers, although the large majority are so. According to the statistics of the Central Office of Statistics the membership of the co-operative credit societies which supplied information on the point was as follows:—

TABLE V. — *Vocational Distribution of the Members of Co-operative Credit Societies.*

Occupations	1933	
	Membership	%
Farmers	61,144	86.0
Artisans	1,222	1.7
Small traders	2,381	3.4
Members of liberal professions and officials.	3,008	4.3
Employees and workmen	440	0.7
Others	2,745	3.9

OTHER CO-OPERATIVE SOCIETIES.

In 1933-34 the co-operative credit societies formed 84.5 per cent. of all the Chinese co-operative societies, while all other types of co-operative societies

taken together making up the remaining 15.5 per cent. These other societies may be classified as follows:—

TABLE VI. — *Classification of the Co-operative Societies in accordance with their junction, omitting the co-operative credit societies.*

	Kiang-Su	Che-kiang	Shantung	Shanghai	Other provinces
Labour	48	5	53	—	111
Consumers	79	15	—	42	64
Producers	242	150	—	—	10
Purchase	—	9	84	—	20
Sale	8	26	24	—	17
Storage	—	8	—	—	—
Insurance	—	1	—	—	—
Miscellaneous	294	—	—	—	1
Total	671	214	161	42	223

80 per cent. of these 1,311 societies were concentrated in three provinces only, viz., Kiang Su, Che Kiang and Shantung. In addition among these 1,311 societies (not being co-operative credit societies), 30.3 per cent. were agricultural co-operative societies of production, and might also be grouped as agricultural.

The total of capital and subscribed shares differ for these different types of society, depending on the kind of business in which the society is engaged. The co-operative production societies are mainly devoted to: silkworm breeding and mulberry tree growing, fishing, pig breeding, bee-keeping, home weaving, cotton growing, hemp cultivation and forestry. All these activities require a certain financial basis.

The situation is different in the case of consumers' co-operative societies which supply their members mainly with foodstuffs; there the movement of commodities is more rapid and in consequence the turnover may be higher without the necessity of greater financial resources. On the other hand, for the co-operative societies for labour and joint utilisation of machines, the question of capital assumes a very great importance. Capital is essential for the purchase of farm machines, for the necessary plant at the place where the work is carried on, for the clearing, irrigation or drainage of lands. All these expenses can only be met when the necessary funds are assured.

The business done by the co-operative societies of purchase and sale is in general the same as that done by European co-operative societies of the same type. The sale societies usually sell cereals, tea and cotton.

The average turnover per society in 1935 for the 386 societies supplying information was as follows: for the producers' societies 2,868 dollars, for the consumers' or distributive societies 17,660 dollars, for co-operative labour societies 2,240 dollars, for the purchase societies 1,304 dollars, for the sale societies 24,680 dollars, and for the others 4,105 dollars.

Conclusion.

Considering the absolute figures and the short time that has elapsed since the introduction of co-operation of the Western type, the number of co-operative societies in China may seem, at first sight, somewhat high. If however the great extent of China is taken into consideration, together with the needs of the rural population both from the standpoint of credit and from that of organisation of agriculture, much clearly remains to be done. According to Dr. CHEN, the future task of Chinese co-operation consists not merely in increasing the number of societies but also, and mainly, in perfecting the organisation of the whole co-operative system. The co-operative societies still depend too much on organisations (benevolent institutions, agricultural banks, provincial governments) which make loans to the societies and do not always give their support to the work undertaken in a really co-operative spirit. According to this writer, there should be a wider extension of the system of unlimited liability, which confers a greater economic stability on the societies and arouses among the members a stronger sense of their responsibility. It is also desirable to promote the formation of co-operative societies undertaking several co-operative activities and hence in closer contact with their members than the simple co-operative credit societies; by the very diversity of their activities they are more capable of exercising the educative influence which is one of the most important functions of co-operation in China. Financial control by professional inspectors should also be introduced and a better system of accountancy. Finally, the constitution of co-operative unions or federations should be encouraged by every possible means. It is the opinion of Dr. CHEN that the co-operative system in China should be developed much further, but always in the sense of an adaptation to the system of the co-operative societies of the Raiffeisen type.

While recognising the advantages of this type of society, Dr. Peo YU regards it as perhaps somewhat too foreign to the mentality of the Chinese rural classes, accustomed to their Ts'ing-hui. Like all peasants, they distrust all that is new and threatens a change in their habits. "At present", he says, "each of the two types retains its original character: the Ts'ing-hui keeps to its purely Chinese character, somewhat too conservative; the Raiffeisen societies, European and modern, do not take sufficient account of Chinese conditions and mentality. Owing to this character and origin of each, they work side by side in ignorance of each other.

"Societies of the Raiffeisen type would spring up and develop very rapidly among the rural populations if they were presented to these honest people as a kind of Ts'ing-hui, while stressing the advantages they possess over these latter. Discovering in these societies the same basis of mutual friendliness and confidence, the peasants would not hesitate to adopt them".

"Ts'ing-hui associations should be formed in several villages under the name of "rural co-operative Ts'ing-hui". They should have a certain owned capital constituted by deposits, loans and profits; these funds should be used for loans granted in view of production".

"As the Ts'ing-hui developed in this way into a real credit organisation, it would pass from the basis of individual to that of collective interest and from the mechanism of simple grouping to that of an organised and complete institution.

"These two systems may thus develop side by side in China. It may be anticipated that in a near future, they will evolve towards a special form of collaboration. Perhaps one day, it will no longer be possible to establish a distinction between them". (1).

A. LENZ.

INTERNATIONAL CHRONICLE OF AGRICULTURE

HUNGARY

The general economic situation began to deteriorate only in the last quarter of 1937. While industrial employment and sales of agricultural products did not fall off perceptibly, the decline in consumption and in the consumption goods industries was already severe. The fall in wholesale prices, moreover, appeared to be returning as a permanent feature. Farmers' receipts, however, continued to rise, and it was not till February and March that the decline in prices of some products began to be felt, while prices of other products continued to rise. Towards the end of the period under consideration, these indices of a general downswing were not yet very marked. The vast programme of Government expenditure, providing for outlays of a milliard pengos, and the satisfactory crop prospects both had a favourable influence, although this was psychological rather than concrete. In any case it contributed towards maintaining prices firm.

Production in 1937 was slightly above average. Cereal crops were, however, 20 per cent. less than those of the preceding year, and 5 per cent. below the average of the previous five years. The production of vegetables, fruits, and wine was also considerably below that of the previous year, but this was compensated by the record maize crop and the excellent potato crop. Cereals for green feed, mangels, clover and alfalfa gave about the same yield as in 1936. The number of head of cattle was only just above the 1936 total, but fattening of both cattle and pigs was good. The wool clip was satisfactory and egg production and poultry-raising increased. Milk production, on the contrary, declined.

The poor cereal crops had the effect of improving the sales and price situation. The record maize crop did not give rise to market difficulties, since supplies were disposed of by exportation, by feeding to livestock for fattening, and by using maize as a substitute for other cereals in the making of bread for the lower income classes. At the beginning of the season the sale of potato stocks was difficult, but this situation improved as soon as it became evident that the new crop was not so good. Furthermore, during the winter large quantities of potatoes were fed to livestock. The increased fattening of pigs coincided with favourable prospects for exports. This was not the case with cattle, the fattening of which was checked by selling difficulties resulting from a falling off in exports. Sales of vegetables, fruits, wine and wool were good. Prime quality butter could be sold within the country in very large quantities, which showed that the dairy produce market had a relatively high capacity for absorption.

(1) YU, Peo, *loc. cit.*, pp. 135-137.

No very great change took place in the direction of exports; exports to Germany increased however, particularly after the *Anschluss*. So far the difficulties which Hungarian exports have encountered as a result of the *Anschluss* have been insignificant. Notwithstanding, cereal exports have experienced a certain falling off. Maize exports, on the other hand, were considerably higher than for some time past. Exports of potatoes encountered difficulties and because of the high prices of primary products, alcohol quotas could no longer be utilised to the same extent as formerly. Pig exports increased markedly and exports of pig fats were double those of the preceding year. Cattle exports felt the effects of autarchic tendencies of the Italian market. Butter exports declined, but poultry exports increased by some 50 per cent.

At the beginning of the season, 1936 price levels were still maintained, but subsequently a decline set in which by the end of 1937 amounted to as much as 15 per cent. The improvement in cereal and maize prices which occurred during the second half of the year under consideration, and a slight rise in milk prices fixed by the Government, to a certain extent compensated the decline in livestock prices. The rise in the prices of poultry, eggs and wine also acted in the same sense. Wool, however, was lower.

The general economic situation of farmers, which was already rather serious, did not materially deteriorate. Profits from pig and cattle fattening were at first higher than in the preceding year, but in the latter months of the period under consideration, they declined to no small extent. The change was in part due to the higher prices of feeding stuffs. Profits from poultry farming were not at all bad.

Nominal agricultural money income was about the same as in the previous year. The general depression which set in the latter months of 1937 will probably be manifest in next quarter's income. Prices of articles and products which farmers must buy remained practically unchanged. The index of agricultural purchasing power, base 1924-25-1926-27 = 100, stood at 70.

I. — MEASURES AFFECTING MARKETS AND PRICES

Measures of a General Character.

Decree Providing for Maintenance of Agricultural Relief Funds. — By certain Government decrees passed during 1935 and 1936, there was constituted a fund for agricultural relief. The appropriation for this fund is decided each year for the following year. For the year 1937-38, the appropriation was fixed at a total of 51 million pengos (1). The main sources of revenue of this fund are the sales tax on flour (24 millions); various contributions from the textile industry (15 millions); in addition the receipts from various special sales taxes and from certain customs duties are paid into this fund. Expenditure is provided for under the following heads: encouragement of sales, 25 millions; rebate of sales tax on flour in respect of quantities of flour exported, 5.2 millions; rebate of railway and shipping expenses, 4 millions; rebates of taxes and similar charges to small farmers, 13.6 millions, etc. (2).

(1) See Government decree No. 4100/1937 M. E. "Subsidies granted for Agriculture". (*A mezőgazdaságnak nyújtott kedvezmények tárgyában*) in *Budapesti Közlöny*, No. 146, 1 July 1937.

(2) For details of provisions see "Decree for the enforcement of the decree relating to subsidies granted to agriculture". (*A mezőgazdaságnak nyújtott kedvezmények tárgyában kibocsátott rendelet végrehajtásáról*) No. 1500/1937 P. M. in *Budapesti Közlöny*, No. 149, 4 July 1937.

Development of Export Control. — The Royal Hungarian Foreign Trade Office is responsible for the quality control of exports. In order to facilitate the execution of this task five branches were established during the period under consideration and agents were nominated in 23 of the largest centres of production. The appointment of a Price Control Officer has had important consequences for agriculture (1).

Market and Price Regulation.

Cereals. — No change has been made in the system of control already in existence.

Animals and Animal Products. — The exportation of horses, mules and asses is for the greater part under control. There was already in existence a semi-co-operative monopoly organisation to which was entrusted the maintenance of prices and the control of quality. A decree was passed in 1933 requiring the use of transport certificates (i. e. a quota certificate in respect of all animals and animal products shipped to countries imposing quota restrictions on imports of these products). A more recent decree dealing with the same matters provides that export certificates must be produced in respect of all exports of horses (2). These certificates are delivered by the Foreign Trade Office in conformity with regulations fixed in detail by the Minister of Agriculture (3). According to these regulations all exporters of horses, except horse breeders and persons who have had charge of the horses for not less than the previous three months, must furnish proof to the Foreign Trade Office that the horse raiser received the minimum price fixed by the Committee for the Export of Horses. This Committee may order with the Minister's consent that all exports to certain countries be effected through a single body, that is, by a syndicate established for the purpose. The committee is composed of representatives of the various Ministries interested, and of agricultural interests. Fixed minimum prices are based on the prices ruling on the markets, but the committee is authorised to fix different prices for different countries, or according to the circumstances existing in each particular case.

Minimum Prices of Products of Animal Origin. — These prices have been fixed under various decrees. The price of milk for liquid consumption was fixed at 0.30 pengo per litre. The wholesale price of butter bearing the Government's quality mark is increased by a subsidy to 2.30 pengos per kilogramme if the butter producer has paid the official fixed milk price to the milk producer. The minimum producers' price for wool was lowered. Minimum prices for poultry and eggs were fixed several times during this period; if dealers pay producers prices less than those fixed, this must be notified to the Foreign Trade Office. All silk cocoons must be sold to a State Silk Office. Their purchase price was increased by 40 per cent.

Hoe crops. — Producers' prices for potatoes have been fixed under various decrees. Former decrees prohibiting the establishment of new sugar beet factories have been rescinded. Producers have been allowed to increase by 10 per cent. the production

(1) Decree No. 2220/1938 M. E. "Better control over prices and remuneration of industrial and other labour and services (*Az árakulás, valamint az ipari és hasonló munkák és szolgáltatások bérének hatályosabb ellenőrzéséről*) in *Budapesti Közlöny*, No. 81, 10 April 1938.

(2) Decree No. 2200/1938 M. E. "Regulation of shipments of horses, asses and mules to foreign countries." (*Lovak ösvérek és szamarak külföldre történő szállításának szabályozásáról*) in *Budapesti Közlöny*, No. 82, 12 April 1938.

(3) See Decree No. 41,500/1937 F. M. "Restrictions on delivery of shipping certificates for horses, mules and asses." (*Lovak, ösvérek és szamarakra vonatkozó szállítási igazolványok kiállításának korlátozása*) in *Budapesti Közlöny*, No. 83, 13 April 1938.

quota allotted to them in the preceding year. Basic buying prices and supplements to, or rebates from, these prices have also been fixed.

Vegetables. — The purchase of paprika was formerly effected through cooperative societies, the only bodies authorised to supply this product to the retail trade. A recent decree (1) authorised the Minister of Agriculture to allow the central cooperative to sell its paprika, at a price fixed by him, to a wholesale paprika dealers' association. At least one-half of the dealers belong to this body, which is required to grant membership to all wholesalers who seek admittance. Members are obliged to purchase at least 170 wagons per annum for sale on the domestic market.

The export of onions is also effected through a State-controlled monopoly organisation, the only body allowed to export this product. Quite recently, small producers have been admitted to it. Onion prices have been increased several times during the period under consideration. Strict observance of delivery dates has been secured by a special provision; producers who enjoy a production quota granted by the Government forfeit the advantages derived thus from if they are late in their deliveries.

Tomato growers and canners concluded an agreement under the auspices of the Minister of Agriculture which fixes purchase prices and the total quantity to be delivered. The Government agreed to pay an export subsidy. This agreement was confirmed by a decree (2) under which contracts, concluded with the several producers must be submitted for approval to local farmers' associations.

Where such local bodies do not exist, control devolves upon the communal administration. Produce canned in factories must be inspected by a Government Board charged with the study of fermentation. The establishment of an export syndicate has been authorised. Factories are required to export their produce in accordance with regulations of the Foreign Trade Office.

Wine. — The State Control of wine distillation introduced last year has been developed by several complementary regulations. An association whose members are granted certain privileges only if they pay to producers the prices fixed by the Government are alone authorised to export. Certificates delivered by the producers, must be produced to show that the proper price has been paid, the exporters must accept the control of the Wine-Selling Cooperative.

Tobacco. — The quantity of tobacco purchased by the State Tobacco Monopoly has increased although the area under cultivation has slightly declined.

Wood. — The Minister of Commerce and the Minister of Agriculture have been authorised to fix prices for firewood according to the particular circumstances. A supplementary decree regulates precisely the various operations and details of the trade in timber.

Quality Control.

Lard. — A decree (3) consolidating previous measures provides that lard for export may bear the Government export quality mark also when refined with substances not harmful to health or with substances which do not leave any traces in the lard. Colour,

(1) Decree No. 2,720/1938 M. E. "Amendment to decree No. 4,650/1936 concerning the sale of paprika." (*A fűszerpaprika értékesítéséről szóló rendelet módosítása tárgyában*) in *Budapesti Közlöny*, No. 291, 23 December 1937.

(2) Decree No. 90,577/1938 F. M. "Production of tomatoes and export of canned tomatoes during the current year." (*A paradicsom folyóévi termeléséről és konzerválásáról*), not published.

(3) Decree No. 89,400/1937 F. M. in *Budapesti Közlöny*, No. 244, 27 October 1937.

flavour, consistency and water content are checked; it is furthermore provided that lard for export can only be produced in special factories, from animals which have been passed by veterinaries, and from fatty matter submitted to similar checks.

Apricots. — Quality marks had hitherto been employed optionally (1) but only in respect of certain high grade varieties (and, with the consent of the Minister, for other varieties). The Government quality mark can only be used if the apricots are all of the same variety, of an equal degree of ripeness, of a certain minimum size, of good shape and colour, and if they have been gathered with care, and are clean, and packed according to certain standards with a maximum of five per cent. rejects. Two decrees of lesser importance complete these dispositions.

Honey. — Two decrees have been published concerning this product (2). Honey for export is subject to rigid quality checks. Only national producers and dealers registered according to special decrees and who are at the same time bee farmers can obtain the Government quality mark from the Minister of Agriculture. The honey must be pure, and white or golden, coming from acacia blossoms, or standard honey from various flowers; and in neither case must the water content exceed 18 per cent. The decrees lay down specifications regarding content, composition, origin, etc.; natural classification; and trade description, fraudulent practices, imports and exports, quality marks, etc. Control of quality of honey for export is carried out in Government laboratories.

Paprika. — A precise system of quality control has been established for this product (3). Control is exerted over semi-manufactured paprika, and for this reason producers must communicate certain data to the manufacturers. If the latter have any doubts regarding quality they must ask the advice of the Government Paprika Office before they can manufacture their product. The register of paprika milling, packing, and sampling, sampling certificates, quality marks, classification of the finished products, and repacking for the retail trade are all regulated in detail. A committee was set up for determining varieties and assisting in classification.

Measures concerning Transport Rates.

Potatoes from some districts pay reduced rates for transport, as is also the case with green fodder cereals coming from certain parts of the country. Brewing barley for export pays a reduced rate under certain conditions. Shipments of fruit and green vegetables (etc.) also pay reduced rates on the railways during the season (4).

Trade Agreements.

France has granted Hungary quotas for slaughtered sheep, pork butcher's products, dead poultry, eggs, cheese, maize, apples, pears, beans and peas.

(1) Decree No. 3,703/1936 M. E. "Control of apricots and peaches for export and check of such control." (*A kivitelre kerülő barack és őszibarack minőségi ellenőrzéséről és ennek tanúsításáról*) in *Budapesti Közlöny*, No. 135, 14 July 1936.

(2) Decree No. 49,000/1937 F. M. "Regulations for honey trade." (*A mézforgalom részletes szabályozásáról*) and Decree No. 89,000/1937 F. M. "Honey quality marks." (*A méz arujeggyel való ellátásának szabályozásáról*) in *Budapesti Közlöny*, No. 192, 25 August 1937.

(3) Decree No. 140,000/1937 F. M. "Paprika quality control." (*A fűszerpaprika minősítésének szabályozásáról*) in *Budapesti Közlöny*, No. 4, 6 January 1938.

(4) Regulation No. 23,592/CII of the State Railways, published in the *State Railway and Transport Journal*, No. 34, 28 April 1938.

Special mention is due to decree 1650/1938 M. F. on the provisional entry into force of the commercial agreement with Czechoslovakia, which makes an important advance in the establishment of normal commercial relations between the two countries. The agreement contains provisions regarding certificates of origin, protection of the quality of Hungarian paprika and of Czechoslovak hops, extension of most favoured nation treatment, exemption of certain transit taxes, exemption from customs duty for goods in transit and facilities for storage in bond, abolition of import and export restrictions, reciprocal reduction of customs duties, etc.

Commercial agreements have also been concluded with Estonia, Latvia and Iran.

II. — MEASURES AFFECTING AGRICULTURAL ECONOMY IN GENERAL

Irrigation Development.

The law (1) regarding the development of irrigation is one of the most important recent laws on agriculture passed in Hungary. The aim of the law is to lay the basis for a vast program of irrigation, and it specifies at the same time the first works to be undertaken. The total cost of these works has been estimated at between 70 and 80 million pengos. This expenditure is to be met mainly out of funds which have already been built up, a loan of 10 millions, an annual budgetary appropriation of 5 millions, and the revenue from the taxes paid by individuals benefiting from the water. The execution of these projects and the management of all matters regarding irrigation come under an Irrigation Office established by the act. Interested farmers are required to combine in irrigation cooperatives. The adhesion of one third of the farmers representing 50 per cent. of the area in question is sufficient for establishing a cooperative. In such cases the remaining farmers are obliged to participate in the cooperative. Construction of a dam and feeder canals has already begun.

Entry into Force of Legislation on Rural Settlement.

This law entered into force on 1 August 1937. The decree (2) relating to its execution contains the important principle that no one may request from the authorities an allotment of land. This complies with the fundamental principle of the law, that the State shall intervene only when its intervention is necessary for establishing an equilibrium between the distribution of land and the density of population and whenever labourers or small holders cannot get ahead by their own efforts.

Rural settlement began in 1936. Up to the end of 1937 the Government purchased allotments amounting to about 25,000 arpents and secured a further area of 15,000 arpents for the establishment of small farms. In this way a total of 40,000 arpents, or 0.4 per cent. of the cultivable area was devoted to the development of agrarian policy; 21,000 arpents were allotted to 3,515 small proprietors owning less than 5 arpents; in addition, 867 families obtained small independent holdings of 52,100 arpents; 261 families received houses with kitchen gardens and 2,400 families received small farms through the intermediary of the State.

(1) Law No. XX/1937. "Measures for developing irrigation" (*Az öntözögazdálkodás előmozdítása érdekében szükséges intézkedésekről*).

(2) Decree No. 140,000/1937. "Execution of the law on rural settlement" (*A telepítési törvény végrehajtása tárgyában*).

Measures concerning Production.

For some years past botanical surveys have been extended. A decree was recently published on the botanic control of shipments of plants, etc., in import, export or transit traffic (1).

In certain parts of the country fertilisers are unfortunately not used with the greatest care. In order to encourage the use of fertilisers, payment of State subsidies for the establishment of fertiliser installations, etc. have been extended. Such subsidies are granted on condition that the installation be managed according to prescriptions laid down by the Government. The construction and utilisation of these installations is surveyed by the Agricultural Councils.

Old Age Insurance for Agricultural Councils.

The law on old age insurance for agricultural workers (2) represents a great advance in the field of social welfare. Agricultural workers of 18 years or more are obliged to take out compulsory insurances unless they possess some landed property or other source of income exceeding a certain level. The sums assured and administrative expenses are paid out of the following funds: contributions of the insured, contributions of property holders paying a land tax, subsidies from the State and from counties. Workers pay 0.20 pengo per week irrespective of the number of days worked. This sum is deducted by the employer from the workers' salaries. Property owners with a net income of less than 100 gold crowns are exempted from contributing to the scheme. The other contributors pay from 5 to 18 per cent. of the amount of their land tax. Contributions from the State and the counties amount to 5 million pengos per year. The principal form of benefit is an old age pension annuity beginning at 65 years and only after at least 15 years of premium payments. The basic amount of annuity payable is 60 pengos per annum, and this annual sum is decreased according to the length of time during which the worker did not participate in the scheme after his eighteenth year and after the entry into force of the law. Deductions are also made from the basic rate if the worker, although participating in the compulsory scheme, had contributions paid for him for less than 6 weeks per year. The basic rate is increased by pension supplements of 1.50 pengos per year for every year in which contributions have been paid for at least 25 weeks. In addition the assured receives another pension supplement of 20 per cent. per year of the total sums paid up to the time he begins to receive his pension.

Under this law benefits are also given to the assured's family in case of his decease.

Compulsory accident insurance for domestic workers on farms and for workers in charge of agricultural machinery has been in existence for about 40 years. Two years ago old age insurance for agricultural workers was introduced. Consequently it was not necessary to establish a new insurance office to cope with the fresh tasks taken on, it being only necessary to transform the already existing insurance office into a National Institute for Rural Social Insurance.

Other Measures of Social Policy.

The National Council for Social Policy was reorganised so as to enable it to serve as an advisory body for the Minister. Its functions have been greatly extended. Re-

(1) Decree No. 30,000/1938 F. M. in the *Budapesti Közlöny* No. 101, 6 May 1938.

(2) See law No. XII/1938. "Compulsory old age insurance for agricultural workers." (A mezőgazdasági munkavállalók kotelező öregsegi biztositásáról).

duced railway rates for navvies have been made subject to less stringent conditions. The Government has approved the sending of agricultural labourers to Germany for seasonal work.

Agricultural Debt Relief.

Decree No. 5,000/1937 M. E. in the *Budapesti Közlöny* No. 161, 18 July 1937 extends debt relief and constitutes thereby another measure of relief for agriculture.

CANADA

The most remarkable feature of Canadian economic conditions during the first half of 1938 is that they have not been influenced by the recession in the United States to the extent that might have been expected. Consequently the remarkable spurt of American security markets in early July – which may or may not continue and which may or may not have an influence on general conditions in the United States – cannot be expected to induce a new upswing in Canada.

The general economic index (base 1926 = 100) reflects the relative stability at a fairly high level which has characterised conditions in recent months. On 11 June it stood at 107.1, compared with 109.6 in April, 106.3 in March and 109.0 at the end of May 1937. The index of wholesale prices shows a similar tendency, but has declined somewhat (from 81.1 at the end of May 1937 to 83.0 in March and 80.3 in June 1938). Comparing the vegetable and animal products' components of this index, the former declined to about the same extent, while the latter has remained very stable.

Possibly the one disturbing factor is the serious decline in newsprint production, which is a very important item of Canadian activity, and which may well have further repercussions on the rest of the economy. The index of newsprint production (base 1926 = 100) fell from 185.6 in April 1937 to 149.0 in January and 124.3 in May 1938. Another unfavourable item is the poor receipts of the two transcontinental railway systems. Otherwise, the export position remains good, and security prices are firm.

According to a crop report of June 30 all the Canadian cereal crops, with the exception of the small winter wheat crop, have fallen off somewhat in condition since May 31. Despite these declines the crops, although later, were still in far better condition than they were at the same period last year.

A calculation based on the crop condition figure for June 30 and on the long-time yield per acre, indicates that the total wheat outturn of Canada this year should amount approximately to 10.5 million metric tons as compared with a final estimate of 5.0 million tons in 1937 and a 1932–36 average of 8.2 million tons. This forecast is very rough and, as the actual outcome of the season depends on the weather conditions in July and August, it may differ widely from the final result.

Data are now available for the value of agricultural production and exports during 1937.

The gross value of commodities produced on Canadian farms in 1937 was estimated at \$1,051,698,000 as compared with \$1,079,571,000, the revised estimate of the gross value of production in 1936. This represents a decrease of less than one per cent., and was accounted for largely by the decreased value of field crops in Saskatchewan. Decreases are shown also in the value of fruits and vegetables, poultry and eggs, maple products and honey. Increases are recorded in farm animals, wool, dairy products and tobacco.

Annual and Monthly Index Numbers of Prices and Production Computed.

Year	Wholesale Prices 1926 = 100				Retail prices and cost of services (4)	Production 1926 = 100		
	All commodities	Farm products (1)	Field products (2)	Animal products (3)		Physical volume of business	Industrial production	Agricultural marketing
1929	95.6	100.8	93.8	112.5	99.9	125.5	127.4	101.1
1931	72.2	56.3	43.6	77.6	89.6	93.5	90.4	99.0
1933	67.1	51.0	45.8	59.7	77.5	79.7	76.8	105.1
1935	72.1	63.4	57.1	73.9	79.1	102.4	103.3	87.4
1937	84.5	84.5	85.7	84.9	83.1	122.8	120.8	49.4
1938								
January . . .	83.8	86.3	88.8	82.2	84.1	111.8	113.5	37.6
February . . .	83.6	85.1	87.5	81.1	83.9	106.7	107.4	25.7
March	83.1	83.0	83.8	81.7	84.2	108.8	110.2	29.7
April	82.3	82.5	83.2	81.2	84.3	114.2	116.6	38.3

(1) Wholesale prices of Canadian products of farm origin only. — (2) Wholesale prices of grains, fruits and vegetables. — (3) Wholesale prices of animals and animal products. — (4) Including foods, rents, fuels, clothing and sundries.

The outstanding decrease was shown in Saskatchewan where the value of all crops was \$93.6 million less than in 1936. The greatest increase took place in Manitoba, where a gain of 43.6 million was registered.

Exports of agricultural and vegetable products, usually the largest main group in point of value sent from Canada, declined from \$346,980,652 to \$244,583,151 in 1937, a decrease of 29.5 per cent. The decline was due almost entirely to exports of wheat which fell by over a \$100 million. Barley also declined, while exports of wheat flour and clover seed increased. At the same time the expansion of Canada's external trade in recent years continued into 1937, the value of the total trade reaching a new high level since 1929. Total exports in 1937 amounting to \$1,124,960,000 showed an increase of 9.4 per cent. over 1936, and 102.9 per cent. over 1932, the low point for exports during the depression.

I. — MEASURES AFFECTING MARKETS AND PRICES

Wheat.

OPERATIONS OF THE CANADIAN WHEAT BOARD.

The net loss on operations of the Canadian Wheat board at the close of the crop year, July 31, 1937, was \$2,278,797, according to a report made in the House of Commons.

The report shows, however, that during the year the 84,698,652 bushels of wheat held by the Board at the close of the preceding year had diminished to 6,964,000 bushels. This quantity had almost vanished, having been sold for seed grain. The heaviest sales of the carryover were made in November, 1936, when 11,239,891 bushels were disposed of, and in April 1937, when sales amounted to 12,360,000 bushels.

ROYAL COMMISSION OF ENQUIRY ON GRAIN MARKETING.

The open marketing system and the continuance of futures trading were approved in the Turgeon report tabled on 12 May 1938 in the House of Commons. Any element of government monopoly or compulsion in marketing was looked upon with extreme disfavour; but because of uncertain factors in world conditions the report claimed that the present Wheat Board should continue to function. The main conclusions of the Report may be summarised as follows:—

- (a) That a compulsory government wheat board is not practical.
- (b) That the futures trading system at Winnipeg should be continued subject to supervision of the Grain Exchange by a competent officer under the Board of Grain Commissioners.
- (c) That voluntary flexible wheat pools, selling in line with world conditions and not against the trade, should be encouraged.
- (d) That the present Canadian Wheat Board should be continued because of uncertain world factors.
- (e) That Canada should have a representative in London, England, whose duty it would be to investigate complaints arising out of shipments of grain and to report directly to the Board of Grain Commissioners.
- (f) That buyers looked on the idea of government monopoly in a producing country with more disfavour than anything else.

The Report stated that the principal advantages of the futures market were that it provided a ready market and that it was a means of shifting the risk of price changes. Under normal conditions, Canada's marketing policy for the future should be to continue futures trading as long as there is free open marketing of wheat in Liverpool, London, and other buying centres. Also, the Commissioner could not see the necessity of a compulsory marketing of all Canadian wheat by a government board unless conditions should change by reason of a war or some other emergency. Speaking with regard to the present Wheat Board, however, the Commissioner states that there are world factors of uncertainty which make the immediate dissolution of the Canadian Wheat Board undesirable.

The Commissioner was of the opinion that the building up of producers' co-operatives after the style of the Australian pools should be encouraged. These are voluntary organisations whose members give 50 per cent. of their wheat to the co-operative. The report considered co-operative marketing to be essentially sound, although in the past "too much talking and agitation was mixed with business".

The report recommended that Canada should have a representative in London, whose duty it would be to investigate on the spot complaints arising out of shipments of grain, and to report directly to the Board of Grain Commissioners. Such an officer should be able to supply reliable information on the general trend of marketing conditions for Canadian grain in the United Kingdom and on the continent.

The report also recommended that a technically qualified supervisor of the Winnipeg Grain Exchange be appointed under the Board of Grain Commissioners, with authority to secure information, and who would be required to report on any conditions prejudicial to the public interest.

NEW STATUTORY WHEAT GRADES.

An amendment to the Canada Grain Act, 1930, passed by Parliament during the present session, provides that Garnet Wheat will not be eligible for the grades of No. 3 Manitoba Northern or No. 4 Manitoba Northern, effective 1 August 1938.

The amendment also provides another statutory grade of Garnet Wheat *viz.*: No. 3 C. W. Garnet which shall weigh not less than 57 pounds per bushel; shall contain not less than 35 per cent. of hard vitreous kernels; shall be reasonably well matured; reasonably free from damaged kernels and foreign material, but may contain up to about 2 per cent. of other cereal grains and not more than a total of 15 per cent. of wheats of other classes or varieties, including a maximum of 3 per cent. of Durum.

Garnet Wheat not eligible for one of the three statutory grades now provided for this variety will be graded into the commercial grades of Red Spring Wheat, No. 5 or No. 6 or Feed Wheat, or into commercial grades of Garnet Wheat which may be named and defined by the Committee on Western Grain Standards.

In the grades of No. 1, No. 2, No. 3 and 4 Manitoba Northern, the maximum percentages of admixtures of Garnet Wheat that may be allowed are 1, 3, 10 and 10 respectively.

The amendment also extends the prohibition of mixing in semi-public and private terminal elevators (Section 125) to include the grades of No. 1 and No. 2 C. W. Garnet.

II. — MEASURES AFFECTING AGRICULTURAL ECONOMY IN GENERAL

Measures of Farm Relief.

SPRING SEED RELIEF PROGRAMME.

In order to seed a fair average crop acreage during the spring of 1938, about 15 millions bushels of seed and feed grain, 40 to 50 thousand tons of fodder and 6 million gallons of tractor fuel would be needed according to figures released by the Minister of Agriculture. It was also announced that the Government would supply considerable quantities of Thatcher seed in the relief programme.

The banks have agreed to advance up to \$18,000,000 for spring seeding supplies, providing such amount was covered by Government guarantee with 75 per cent. of this amount, or \$13,500,000, guaranteed by the Federal Government.

The Deputy Minister of Agriculture, in a statement respecting seed grain for 1938, said that where there was a crop failure in 1937, rural municipalities are authorised to make advances of seed grain to farmers unable to provide seed for themselves. Municipalities are under no obligation to make such advances, however, but may do so if the circumstances justify such action.

Seed oats imported by Provincial Governments for distribution to farmers were allowed to enter the country free of duty and special excise tax during the period 4 April to 31 May 1938.

DEBT RELIEF IN SASKATCHEWAN.

All debt adjustment agencies operated in Saskatchewan have accounted for a total debt reduction of \$111,768,000 to date, according to figures compiled by Government officials. A large percentage of the reduction applied to farm debt.

The figure quoted includes adjustment under the voluntary adjustment plan, tax adjustments, relief write-offs and adjustments by agricultural implement and mortgage companies.

BRAZIL

Brazil, which is a predominantly agricultural country, was until recently a country of one crop: coffee accounted for eighty per cent. of the country's exports. The economic crisis brought about by the overproduction of this commodity led the Federal Government to frame a new agricultural policy encouraging more varied production. The percentage mentioned above began to decrease, owing to the introduction of new crops, the more extensive cultivation of other crops already grown, the development of internal trade in order to increase the consumption of home products and, finally, owing to increased industrialisation allowing a reduction of imports.

The results of this new policy are to be seen in the indices of the total value of production in the last few years. The Index, (1925-1929 = 100), which began to fall from 118 in 1928 and reached 73 in 1933, the year in which the price of coffee was at its lowest, subsequently rose and reached 145 in 1937.

The factors determining the production indices during the period under review varied considerably. It is useful to consider them in order to make clear the advantages of the change in agriculture from monoculture to polyculture. In 1928, a year in which monoculture was predominant, coffee was the factor determining the value of agricultural production; the other products were of insignificant importance.

Between 1933 and 1937 the position changed, although coffee kept first place. The following table shows how the situation in respect of agricultural exports altered between these two dates:

Value in pounds sterling

Products	1933	1937
Coffee	23,168,000	17,887,000
Raw cotton	369,000	8,018,000
Cacao	1,340,000	1,924,000
Oranges	651,000	1,021,000
Meat	643,000	1,884,000

The products other than coffee, which in 1933 represented only 11.4 per cent. of the value of the principal agricultural exports, in 1937 accounted for 41.8 per cent.

Further, there was an increase also in the indices of prices and of the cost of living. The former, (1929 = 100), fell to 68 in 1933, and rose to 80 in 1937; the latter at the same periods stood at 100, 86.9 and 120.

I. — MEASURES AFFECTING MARKETS AND PRICES.

The new Constitution promulgated on November 10, 1937 encourages the development of the country. In addition to taking measures affecting the markets for the principal products, the Government has suspended the service of the foreign debt and has restricted transfers: the decrease of the gold value of exports, coupled with an increase of imports, had caused a scarcity of foreign exchange and led to these defensive measures.

The success of the economic reorganisation now under way will doubtless permit a return to normal conditions.

Coffee.

The coffee market has recently been the subject of government measures which have completely changed the previous situation. A decree of November 13, 1937 (N. 131) completes the system of regulation which has been practised without interruption for

the last thirty years (1907-1937). The main lines of this earlier policy, the object of which was to maintain the price of coffee at a remunerative level, are to be seen in the following provisions.

It began with three successive "valorisations" of the commodity. In 1906 the considerable increase in coffee-growing resulting in an exceptional harvest (20 millions sacks for a world consumption of Brazilian coffee of 11 million sacks) caused a disequilibrium in the world market for coffee and a fall in price. The Government met the situation by contracting a loan of £15 million for the purchase of coffee on the world market and the storing of it, together with its own surpluses, in the general warehouses of New York and in the principal ports of Europe. Circumstances were favourable to the sale of these stocks at a good price and this permitted the repayment of the loan.

The result of this first valorisation was so encouraging that a fall of prices in 1917, due to too large a crop, induced the Government to repeat the operation. This was a complete success favoured by weather conditions. The reduced crop of 1918, due to frosts, allowed the liquidation of the stocks at a remunerative price, the loan was repaid and a profit valued at nearly £5 millions was made.

The catastrophic fall in prices from 23.5 *centavos* per lb. in 1920 to 9.5 in 1921 caused the Government to attempt a third valorisation, again by means of a foreign loan which, when finally repaid in 1924, did not however yield the same profit as the first two valorisations.

To the policy of valorisation succeeded the policy of "coffee defence". The difficulties noted during the preceding period and the need to protect production in a definite way led to the adoption of a policy based on foreign loans. The programme was carried out by the Coffee Institute at Sao Paulo, then by a National Council, transformed a little later into a National Coffee Department. This government office inaugurated the system of taxes on exports and the monthly destruction of quantities of coffee determined with reference to the size of the crop and world stocks. The tax, fixed at first at 10 shillings per sack of 60 kilogrammes of coffee exported, was raised a little later to 13 shillings and finally to 45 milreis; the yield of the tax was to be used either for the payment of interest and sinking fund charges, on debts contracted for the purpose of maintaining the stability of prices, or for the payment of a small indemnity to producers for the voluntary destruction of part of their crop. In five years the taxes imposed amounted to 3,800,000 contos and the total quantity of coffee destroyed was 55 million sacks of 60 kilogrammes.

The effects of this interventionist policy were in the long run very harmful: the area under coffee increased not only in Brazil but also in all the producing countries. The result was that all the countries sold their crops and increased their production, Brazil favouring this competition to her own disadvantage by the policy of destruction aiming at equalising world production and consumption. Thus Brazilian coffee which constituted 75 per cent. of world consumption before this period of intervention has represented only 50 per cent. in more recent years. In order to improve the situation Brazil decided to submit the problem to the Pan-American Coffee Conference which met at Havana from August 9 to 17, 1937; this conference proposed an agreement that should do justice and be advantageous to all coffee-producing countries. The four points that Brazil considered it necessary to deal with in order to obtain effective co-operation between producers were: (a) the prohibition of new plantations during five years; (b) the prohibition of imports of a quality inferior to a given type; (c) the financing by the countries represented at the conference of a coffee propaganda scheme in the United States; and (d) the support of the New York "price parity" of the coffee of the various producing countries, with a just distribution of the costs of the de-

fence of the coffee market. This attempt failed and Brazil finally abandoned her previous policy and began to compete in the free market. This was the start of a price war carried on with the aid of a series of measures contained in decree No. 2,131 mentioned above.

Firstly, there was a reduction of 75 per cent. in the export tax, from 45 to 12 milreis. This measure was essential: the tax of 45 milreis on the export of each sack of coffee constituted a veritable bonus given freely by Brazil to other countries. Another measure taken by the new law was to improve the economic position of the National Coffee Department by liberating it of all debts that it had contracted for the negotiation and discount of merchants bills of exchange, and by the transfer of this debt charge to the Treasury.

Further, in order to strengthen the financial position of this Department a new account, credited with 300,000 contos deposited at the Bank of Brazil, was opened in its name to afford it the means of meeting the costs of the storing of 70 per cent. of the new season's crop.

The decree reduced from 3.5 gold milreis to 2 paper milreis the tax on exports of coffee from the State of Sao Paulo.

The repercussions of these measures on the coffee market during the first four months of 1938 appeared clearly in the export figures: 6,034,277 sacks of coffee were exported, as against an export of only 4,369,093 sacks in the preceding year that is 1,665,184 sacks, or 38.11 per cent. less.

At the same time the official statistics of the coffee registration centres show a decrease of the exports of countries which previously benefited by the Brazilian policy.

Clearly this commercial war caused a fall in the prices of coffee. Here are the quotations on the New York market for Brazilian coffee and for coffee from other South- and Central-American producing countries. The figures represent the prices for the months preceding and succeeding the publication of the decree respectively; they are expressed in dollars per 50 kilogrammes.

	October 1937	December 1937	Fall	Per cent.
Colombia (Medellin, excellent)	13.40	10.60	2.80	21
Santos (First quality)	11.05	7.65	3.40	30
Nicaragua (Average type)	11.60	8.15	3.45	29
Salvador (Average type)	11.00	9.00	2.00	18

The greatest fall is in respect of Brazilian coffee although Brazil was in the most favourable position; in fact that country was compensated by an increase of exports and the conquest of new markets. This means that for other countries not only did the prices fall but the volume of exports also declined.

Cotton.

In accordance with its programme of economic reconstruction Brazil is developing its cotton production which, unimportant a few years ago now puts the country in the fourth place among exporting countries and in the fifth or sixth place among producers.

The market position has always been fairly good as a result of the measures taken by the Government; at the moment this situation is even more favourable, for two reasons. Firstly, the latest agricultural law of the United States authorises the government to prescribe a reduction of the area under cotton and the abolition of surpluses, and to take other measures to establish a stable equilibrium between production and consumption; this has led to a rise in prices. Secondly, Japan, a large buyer of Bra-

zilian cotton, although she has reduced her imports of this commodity, has given Brazil favourable treatment: during last year import of Brazilian cotton into Japan exceeded 50,000 metric tons.

Finally the Brazilian textile industry, which is developing rapidly, is absorbing ever increasing quantities of cotton, thus facilitating the placing of the output and the raising of prices. The prices paid recently to producers in the State of Sao Paulo, which is the centre of production and trade and determines prices, was in May last 15 milreis per arroba of 15 kgs. of cotton. Knowing the costs of production we can determine the amount of profit obtained by the producer from this selling price: according to the statistics of the Federal Foreign Trade Council of Sao Paulo, the cost of producing an arroba of cotton is barely 12 milreis; thus there is a profit of 3 milreis. This margin of profit tends to increase because the cost of production is falling as the improvement of agriculture increases the productivity of the land; further the rise in the world price of cotton, at present at rock bottom, will begin when the favourable consequences of the new United States law begin to affect world markets.

Cereals.

Wheat and flour. — Although the bread eaten by the rural masses contains only a very small amount of wheat flour, Brazil imports large quantities of wheat flour (86 per cent. of consumption); statistics show imports in 1936 at about a million metric tons having a value of 665,000 contos, representing 20 per cent. of the country's imports. The imports this year look like being larger in both weight and value. The payment of the supplying countries for these imports constitutes a ruinous charge on the trade balance.

In face of this situation the Government has taken a series of energetic measures to resolve the problem. We will describe the main lines of this legislation.

The *Lei do Trigo* (Wheat Law) of 24 April 1937 covers the whole problem in its economic and technical aspects: it provides for the creation of stations and experimental centres for the development of wheat-growing, for the distribution of rewards to producers who increase the areas they sow to wheat and who obtain improved yields, and for the reduction of transport rates in brief a whole series of measures for the increase of production.

In May 1937 a decree (No. 803) set up a Committee to study the commercial aspect of the wheat problem and to fix the minimum percentages of home-grown wheat to be used, with foreign wheat and flour from other cereals, in the making of bread. In this connection, and as a first measure of protection, the tariff advantages favouring foreign wheat were abolished and import duties established.

Finally, a decree-law of November 30, 1937 made obligatory the production of a flour with at least 30 per cent. of starch or flour of other home-grown cereals.

II. — MEASURES AFFECTING AGRICULTURAL ECONOMY IN GENERAL

The new Brazilian Constitution declares that production will be organised corporatively. For this purpose a National Economic Council was created, which will proceed to the corporative organisation of the national economy, fix on its own initiative the conditions of work in agriculture and industry, rationalise their organisation and administration and to study the problem of agricultural credit and the organisation of markets for agricultural produce.

MONTHLY BULLETIN

OF

AGRICULTURAL ECONOMICS AND SOCIOLOGY

1938

No. 8

AGRICULTURAL EXPORTS FROM HUNGARY DURING THE YEARS 1929-1937

SUMMARY: Agricultural Production — Trade Agreements — External Trade — Foreign Markets of Hungary: Recent Developments — Products Imported and Exported.

It is proposed to give a survey of Hungary's efforts to develop her exports, especially her agricultural exports, during the period from the year 1929, marking the end of the era of prosperity following the war, through the world crisis (1930-1934) to the recovery of the years 1935-37.

Our study does not go beyond the end of 1937; it does not therefore take account of the great historic event of the spring of 1938, of fundamental importance for Hungary's political and economic life: the union of Austria with the German Reich. In consequence Austria in this article still appears as an independent State and as a neighbour of great economic importance. It has been felt necessary to make this preliminary remark so as to avoid misunderstanding and to make clear that certain conceptions inherent in this article belong to the past.

Agricultural Production.

Hungary is an agricultural country situated in the middle of Europe, in the basin of the Danube. The frontiers march with those of four States: Austria, now joined with Germany, Czechoslovakia, Romania and Yugoslavia. The two first are predominantly industrial countries, and remain so in spite of their efforts towards agricultural self-sufficiency; the two others on the other hand are purely agricultural countries. In consequence Austria and Czechoslovakia are natural markets for Hungarian agriculture, while the other two must be regarded as competitors. Two characteristics are common to all five States: the geographical and economic fact that they all belong more or less to Central Europe and the basin of the Danube, and the political fact that they are all in greater or lesser degree Succession States of the former Austro-Hungarian Empire. Hungary, Austria and Czechoslovakia are States

belonging exclusively to Central Europe; they do not include any territory which did not form part of Austria or Hungary before the war. Rumania and Yugoslavia are transition countries between Central and Eastern Europe or the Balkan Peninsula, and merely enlarged their historic territory by new provinces detached from Austria or Hungary.

Post-war Hungary is a very different country from the pre-war country. Not only was Hungary obliged to give up to the Succession States 71.5 per cent. of her territory and 63.6 per cent. of her population, but the whole economic and political structure of the nation underwent a radical transformation. The greater part of her natural resources and her raw materials are in the transferred territories (for example, 88 per cent. of the forests were ceded; post-war Hungary retains only 12 per cent.); while the constitutional bond which united Hungary to the former Austria was broken — a bond which, although offering few advantages in the purely political sphere, had great importance from the economic standpoint, owing to the existence of a customs union between the two countries.

As regards agricultural exports, it is obviously a change of fundamental importance when a country forming part of a vast customs territory which can absorb all, or nearly all, the crop surpluses, and within which production is protected and regulated by customs duties, is suddenly reduced to the status of a small agricultural country, in which the conditions of the world market decisively affect the internal production.

Hungary is an agricultural country but by no means exclusively; she is not a State of small farmers only. According to the most recent enquiries (1), agricultural production represents from 30 to 40 per cent. of the nominal value of the national income, while from 25 to 32 per cent. comes from industrial production; agriculture accounts for 37 to 43 per cent. of the national production in volume and industry 26 to 30 per cent. Agriculture does not entirely dominate the economic structure of the country. The prosperity of agriculture determines that of industry, and inversely any depression in the agricultural situation reacts on industrial activity.

Two groups of facts should be borne in mind:—

(a) The cultivated area represents about 60 per cent. of the total area of the country; 50 per cent. of the area under cultivation, or 33 per cent. of the total area, is under cereals; 27 per cent. of the area cultivated in cereals and 16 per cent. of the cultivated area are sown to wheat;

(b) the share of agriculture in the national income is distributed as follows among the chief branches of agricultural production (2).

During the ten years under review, wheat has represented 12 to 14 per cent. of the nation's agricultural income. If the enquiries had been extended over the following three years, the share would probably have been higher, in view of the Hungarian Government's efforts to raise the price of wheat

(1) MATOLCZY-VARGA, Magyarország nemzeti jövedelem (Le revenu national hongrois) 1924/25-1934/35. — (2) *Ibidem*.

TABLE I. — *Composition of the Agricultural Share in the National Income.*

(percentages).

	1924-25	1934-35
Cereals	22.14	18.91
Rootcrops	14.44	15.30
Fodder crops	10.00	10.63
Miscellaneous	19.36	24.80
Crop production	65.94	69.64
Stock farming	26.84	23.68
Poultry	6.93	6.04
Miscellaneous (1)	0.29	0.64
Animal production	34.06	30.36
Total	100.00	100.00

(1) Fishing, hunting, bee-keeping, silkworm breeding.

above the world price. Apart however from the particular place which it occupies at any given moment in production statistics, wheat is and remains the chief, and so to speak the symbolic, product of Hungarian agriculture. Owing to this symbolic character, the general level of agricultural prices, and in consequence the level of Hungarian economy as a whole, is determined in practice by the price of wheat.

In consequence, the agricultural prices policy and even the price policy in general, consists mainly in a policy of wheat prices. It is however clear that in a country where wheat production exceeds the requirements of internal consumption, a policy of wheat prices cannot be realized by means of national measures alone, or by customs duties. Results can be obtained only by means of international collaboration, *viz.* by commercial policy. While a wheat importing country may make the regulation of imports, *i. e.*, customs duties, the basis of its policy of wheat prices, a wheat exporting country can take action only on the exports, granting to its own production of wheat a price protection which may be modified by customs production in retaliation.

Wheat has thus for a long time been the pivot of Hungary's trade policy. This predominant place taken by wheat dates only from the beginning of the world crisis; it has been most important only during the years which are here under review.

Trade Agreements.

Two of the neighbouring countries of Hungary, two great powers which in their turn are neighbours of these, namely Germany and Italy, are wheat importing countries.

This fact determines the "map" of Hungarian trade policy; the task of the crisis years consisted in extending this map to new regions, in order to meet the new economic exigencies. These new exigencies belong to the sphere of currency policy, and may be designated semi-agricultural; these new regions are represented by countries having adopted the clearing system of payments; among these, Great Britain occupies the first place in Hungarian exports.

Such considerations have dictated the trade policy which has had so decisive an influence on exportation. The following events, arranged in chronological order, which fall within the sphere of trade policy or within that of international relations in general, have taken place during the decade with which this article deals:

(1) Beginning of an extra-conventional regime in relations with Czechoslovakia, December 15, 1930.

(2) Conclusion of a new commercial treaty with Austria, introducing a system known as the *Brocchi system* in the relations between the two countries, July 19, 1930.

(3) Closing of the banks in Hungary and official beginning of the economic crisis and of the system of currency control, July 1931.

(4) Conclusion of a new commercial treaty with Italy introducing the *Brocchi system* in the relations between the two countries, June 23, 1932.

(5) Beginning of an extra-conventional regime in relations with Austria, July 15, 1932.

(6) Conclusion of a new commercial treaty with Austria, December 21, 1932.

(7) Signing of a supplementary agreement with Germany, February 21, 1934.

(8) Pact of Rome, March 17, 1934.

(9) Bilateral agreements with Italy and Austria for applying the Pact of Rome in the economic sphere, May 14, 1934.

(10) Conclusion of a new commercial treaty with Czechoslovakia, November 17, 1937.

It is obvious that the above list is not complete. Not only is it confined to the four countries mentioned above which are Hungary's principal trade outlets, but it merely includes the most important events; it leaves on one side the innumerable secondary agreements, signed from year to year and often from month to month.

As further illustrating the position, it should be noted that between Hungary and Czechoslovakia there has existed, during nearly the whole of the period under review, an extra-conventional system, which has been supplemented only by simple clearing agreements of more or less limited range of application. This state of affairs has exercised a considerable influence on the trade relations of the two countries. On the other hand, the *Brocchi system*, which was applied by Hungary towards the end of the period under review in respect both of Italy and Austria, has helped to increase mutual trade owing to the concession of credit facilities for export.

To make the situation clear three further observations are necessary.

The new commercial treaty with Austria, concluded after an extra-conventional system had existed between the two countries for some six months, had an important influence on the development of exports from two different points of view. On the one hand the treaty laid down a ratio of 1 : 1.5 for commodity exchanges (1 representing the Hungarian imports from Austria), while formerly the Hungarian exports to Austria were more than double the imports. On the other hand, the Treaty regulated the Hungarian export of live animals by reducing very considerably the figures reached by this export in the past, but however ensuring to Hungary a certain trade outlet in Austria at stable prices.

The Pact of Rome of March 1934 was a political instrument, concluded by the Heads of the Governments of Hungary, Italy and Austria, and designed to meet the following objects:—

- (a) development of the trade relations between the three countries;
- (b) raising of the price of Hungarian wheat, and finding markets, by common agreement, for the surplus production.

These economic objects were attained for the first time in the month of May 1934, and were maintained by means of the conclusion of bilateral agreements which made it possible to double the internal price of wheat in Hungary, although the Economic crisis was at its height.

The supplementary agreement of 1934 with Germany served as a basis for the development of economic relations between the two countries and marked the beginning of the conquest of the German market by Hungarian agricultural products. Whereas formerly Hungary exported to Austria more than to any two other countries together, including Germany, from 1934 the share of Germany in Hungarian exports approached that of Austria, and has since always exceeded it.

External Trade.

Hungary's foreign trade for the years 1929 to 1937 may be statistically summarised as follows.

The rapid and comprehensive reaction of external trade to the crisis and to Government intervention may be noted; they are clearly shown from the index number. This reaction has been the greater owing to the tendency, general in times of crisis, to reduce imports and increase exports. Naturally, there were similar tendencies in all countries, and the final result was a reciprocal cancelling-out; so long as they prevailed, they did more to aggravate the crisis than to palliate it.

The Hungarian national economy has supplied an excellent proof of its vitality: in spite of all the obstacles of an international character, it has succeeded in constantly maintaining the index numbers of its exports above those of imports. This advantage increased steadily as the crisis became gradually less acute and as Hungary's external trade began to develop in consequence both of the general recovery and of the measures of trade policy indicated above. The margin between the index numbers of export and import has never been

TABLE II. — *Course of the Value of the External Trade of Hungary from 1929 to 1937.*

Year	Exportation		Importation		External Trade		Balance	
	Million pengoes	Index numbers	Million pengoes	Index numbers	Million pengoes	Index numbers	Million pengoes	
1929.	1,038.5	100.0	1,063.7	100.0	2,102.2	100.0	—	25.2
1930.	911.7	87.8	823.4	77.4	1,535.1	82.5	+	88.3
1931.	570.4	54.9	539.4	50.7	1,109.8	42.8	+	31.0
1932.	334.5	32.2	328.5	30.9	663.0	31.5	+	6.0
1933.	391.3	37.7	312.6	29.4	703.9	33.5	+	78.7
1934.	404.2	38.9	344.9	32.4	749.1	35.6	+	59.3
1935.	451.5	43.5	402.3	37.8	853.8	40.6	+	49.2
1936.	506.6	48.8	432.9	40.7	939.6	44.7	+	73.7
1937.	588.6	56.7	475.5	44.7	1,064.1	50.6	+	113.1

so large, during the whole period under review, as in 1937, the year which may be described as the first normal year after the crisis.

The total value of exports and imports together was in 1937 over a milliard which, although it represents only one half of the level of two milliards reached in 1929, tends to show that foreign trade is returning to normal.

The picture would not be complete without a comparison between the agricultural and the total exports. As the term "agricultural export" is capable of various interpretations—since a number of products, such as timber, flour, malt, etc., are on the borderline between agriculture and other branches of production—the classification of the Royal Office of Foreign Trade (1) is here followed, according to which the agricultural export includes all the products enumerated in the first twelve sections of the Hungarian customs tariff (including timber). Such a terminology is open to certain theoretical reservations, but it is none the less useful as a basis of comparison.

The proportion between agricultural exports and total exports and the distribution of agricultural exports into three main categories has been as follows.

The fall in the percentage of agricultural exports does not necessarily express a decrease in the volume of agricultural products exported, but is rather the result of a fall in prices. However, it cannot be denied that there has been a marked development in the export of manufactured products since the crisis, and that this export, owing to its greater adaptability, has been able to conquer new markets, while there has been a loss of trade outlets for agricultural products.

As will be shown, the development of agricultural exports was, even during the crisis years, ruled more by the size of the harvests than by variations in market conditions. The fluctuations in agricultural exports have been percep-

(1) *Manual of the Foreign Trade of Hungary*, IV, published by the Royal Office of Foreign Trade, Budapest, 1938.

TABLE III. — *The Agricultural Exports of Hungary 1929 to 1937.*

Year	Total exports	Agricultural exports	% of the total exports	Exports of live stock production in million pengoes	% of total exports	Exports of cereals etc. in million pengoes (1)	% of total exports	Exports of "small" types of production in million pengoes (2)	% of total exports
	in million pengoes								
1929 . .	1,038.5	796.3	76.7	210.4	26.4	348.8	43.8	237.1	29.8
1930 . .	911.7	674.6	73.9	243.4	36.1	231.0	34.2	200.2	29.7
1931 . .	570.4	384.4	67.4	120.4	31.3	108.9	28.3	55.1	40.4
1932 . .	334.5	219.0	65.5	61.5	28.0	71.6	32.7	85.9	39.3
1933 . .	391.3	279.0	71.3	74.2	26.5	115.7	41.5	89.1	32.0
1934 . .	404.2	280.0	69.3	74.1	26.4	104.8	37.5	101.1	36.1
1935 . .	451.5	303.9	67.5	107.6	35.4	102.6	33.7	93.7	30.8
1936 . .	506.6	340.6	67.1	110.4	32.4	134.1	39.4	96.1	28.2
1937 . .	588.6	390.4	66.2	112.1	28.7	166.7	42.7	111.6	28.6

(1) Cereals, flours and similar products, food pulses, seeds. — (2) Poultry, fruits, vegetables, other foodstuffs, crop products.

tible, but not regular; in consequence it is not possible to establish a synchronism between these fluctuations on the one hand, and the course of the crisis and of the measures of trade policy on the other. The fluctuations depend rather on natural factors, which at all times have been decisive for agriculture.

Hungary's Foreign Markets — Recent Developments.

The relations between external trade on the one hand and measures of trade policy or the development of the crisis on the other hand, stand out more clearly if we examine the details of the trade between Hungary and other countries:—

TABLE IV. — *External Trade of Hungary with the Leading Countries.*

(Figures in millions of pengoes; percentages those of the total value)

I. — Exports from Hungary.

Year	Total export	Exports into									
		Austria		Germany		Italy		Czechoslovakia		Great Britain	
			%		%		%		%		%
1929. . . .	1,038.5	315.5	30.4	121.2	11.7	71.5	6.9	170.1	16.4	37.2	3.6
1930. . . .	911.7	257.1	28.2	92.9	10.2	116.4	12.8	154.7	16.9	49.4	5.4
1931. . . .	570.4	169.8	29.8	72.6	12.7	55.6	9.8	23.8	4.2	55.8	9.8
1932. . . .	334.5	100.8	30.1	50.6	15.2	26.2	7.8	22.7	6.8	23.2	6.9
1933. . . .	391.3	106.7	27.1	44.7	11.4	29.3	8.4	29.3	7.4	30.4	7.7
1934. . . .	404.2	98.8	24.4	89.9	22.2	34.1	8.3	19.8	4.9	30.7	7.6
1935. . . .	451.5	86.3	19.1	108.1	23.9	60.8	13.5	20.7	4.6	37.9	8.4
1936. . . .	506.6	86.8	17.1	116.8	23.1	65.8	12.9	20.3	4.0	43.7	8.6
1937. . . .	588.6	99.5	16.9	141.7	24.1	72.3	12.3	20.6	3.5	42.0	7.2

II. — Imports into Hungary.

Year	Total imports	Imports coming from									
		Austria		Germany		Italy		Czechoslovakia		Great Britain	
			%		%		%		%		%
1929. . . .	1,063.7	140.1	13.2	212.5	19.9	40.7	4.9	228.7	21.5	25.3	3.1
1930. . . .	823.4	98.3	11.8	174.7	21.0	46.8	4.4	180.5	21.7	30.0	3.9
1931. . . .	539.4	67.3	12.5	131.4	24.4	32.6	6.0	49.3	9.2	20.9	3.9
1932. . . .	328.5	50.9	15.5	73.9	22.5	18.5	5.6	34.3	10.4	15.3	4.7
1933. . . .	312.6	62.5	19.9	61.5	19.6	23.2	7.4	32.4	10.3	12.9	4.1
1934. . . .	344.9	80.6	23.4	63.0	18.3	41.1	11.9	24.5	7.1	18.3	5.3
1935. . . .	402.3	75.5	18.8	91.3	22.7	30.3	7.5	19.5	4.8	21.4	5.3
1936. . . .	432.9	72.5	16.7	111.8	25.8	32.3	7.5	22.1	5.1	21.6	5.0
1937. . . .	475.5	85.4	17.9	124.8	26.3	33.0	6.9	29.6	6.2	25.0	5.2

III. — External Trade of Hungary.
(exports and imports)

Year	Total external trade	External trade with the countries									
		Austria		Germany		Italy		Czechoslovakia		Great Britain	
			%		%		%		%		%
1929. . . .	2,102.2	455.6	21.7	333.7	15.9	112.2	5.6	398.8	19.0	62.5	3.2
1930. . . .	1,735.1	355.4	20.2	267.6	15.6	163.2	9.1	335.2	18.8	79.4	4.9
1931. . . .	1,109.8	237.1	21.4	204.0	18.4	88.2	8.0	73.1	6.6	76.7	6.9
1932. . . .	663.0	151.7	22.9	124.5	18.8	44.7	6.7	57.0	8.6	38.5	5.8
1933. . . .	703.9	169.2	23.9	106.2	14.9	52.5	8.1	62.7	8.6	43.3	6.3
1934. . . .	749.1	179.4	24.0	152.9	20.4	74.8	10.0	44.3	5.9	49.0	6.5
1935. . . .	853.8	161.8	19.0	199.4	23.3	91.1	10.7	40.2	4.7	59.3	6.9
1936. . . .	939.6	159.3	17.0	228.6	24.3	98.1	10.4	42.4	4.5	65.3	7.0
1937. . . .	1,064.1	184.9	17.2	266.5	24.7	105.3	9.8	50.2	4.7	67.0	6.2

IV. — Trade Balance of Hungary.

Year	Total external trade	External trade with the countries								
		Austria	Germany	Italy	Czecho- slovakia	Great Britain				
1929	— 25.2	+	175.5	— 91.3	+	24.6	— 58.6	+	7.2	
1930	+	88.3	+	158.8	— 81.8	+	75.7	— 25.8	+	24.1
1931	+	31.0	+	102.6	— 58.7	+	23.0	— 25.5	+	34.9
1932	+	6.0	+	49.9	— 23.3	+	7.6	— 11.6	+	7.9
1933	+	78.7	+	44.1	— 16.8	+	10.9	— 3.1	+	17.4
1934	+	59.3	+	18.3	— 26.8	— 7.4	— 4.7	+	12.4	
1935	+	49.2	+	10.8	— 16.8	— 30.5	+	1.2	+	16.5
1936	+	73.7	+	14.3	— 5.0	+	33.5	— 1.7	+	22.1
1937	+	113.1	+	14.1	— 16.9	+	39.3	— 9.0	+	17.0

The reason for adding Great Britain to the group of four countries, enumerated above as the chief customers and suppliers of Hungary, is to call attention to foreign currency policy. From the beginning of the crisis, this has considerably influenced the development of Hungary's external trade. The necessity for obtaining foreign currency has imposed upon Hungary, as on many other countries, a policy out of line with its natural possibilities, and a new direction of its economic currents based on new ideas, instead of a policy keeping strictly to the economic and geographical facts.

Before the war, the choice of markets abroad was dictated solely by the possibility of selling surpluses most easily and at the best prices. This situation has been modified since the war; the surpluses have often been directed, at the cost of considerable economic sacrifices, towards new and distant external markets, solely so as to obtain unblocked foreign currency. Now, such a trade policy could succeed only if a middle term could be found reconciling the agricultural interests of the nearest market with the importance of sales more advantageous from the standpoint of obtaining foreign currency. After some hesitations due to initial difficulties, Hungary was not only able to find such a middle term, but to maintain it; the proof of this is that the raising of prices of agricultural products, the balance of payments and the inflow of unblocked foreign currency have been all successfully realised at one and the same time.

Hence it is that, from the first years of the crisis, the percentage of the total export of exports to Great Britain has more than doubled in comparison with 1929; towards the end of the period now under review these exports exceeded, even in absolute figures, the level of 1929. Taking account of the fact that the total export from Hungary in 1937 represented only 56.7 per cent. of the 1929 export, while the Hungarian exports into Great Britain reached in 1937 some 114 per cent. of the 1929 figure, the result is a relative doubling of the percentage of exports to Great Britain. An even better idea of the great influence exercised on external trade by foreign currency policy will be gained from noting in the following table the exports from Hungary to the United States.

In considering Hungarian exports to Austria, it is necessary to take also into account those directed to Germany, in order to appreciate properly the relative development of the two currents of exportation. Exports to Austria reached in 1931 a percentage of total exports almost identical with that of 1929; the same was true in 1932, although an extraconventional system had existed for six months. It was only in 1933 that this percentage began to fall, almost vertically in the course of the four succeeding years. This has been due to several different causes; the bed of Procrustes of the 1 : 1.5 ratio, the tendency to agricultural autarchy in Austria, the fall of prices there, Hungary's foreign currency policy. However it may be, the fact remains that Hungarian exports to Austria attained in 1937 only 32 per cent. of the 1929 figures, while the total exports represented only 56.7 per cent. of that of 1929.

On the other hand, exports to Germany increased during this period from 1933 to 1934, the percentage as compared with total exports nearly doubled.

The latter year was that of the opening of the German market and of the conclusion of a trade treaty between the two countries; hence Hungarian exports to Germany became almost as important as those to Austria. This position changed again in 1935, when Germany took first place among Hungary's customers. Exports to Germany in 1937 exceeded the 1929 level even in absolute figures, which is equivalent, as in the case of Great Britain, to a relative increase of double.

Taking into account the historic event of the spring of 1938, and considering the exports to Austria and to Germany as forming a single whole, it will be seen that these have reached about 54 per cent. of the 1929 figures.

Hungarian exports to Italy clearly show the influence of the trade policy of the international position. Exports to Italy fell to depression level during the years 1932-33. They rose as from 1934, owing to the Rome Pact and then in consequence of the sanctions applied to Italy, a measure in which Hungary refused to take part. At the end of the period under review, exports to Italy slightly exceeded the 1929 level, which again corresponds to a relative increase of double.

The influence of trade policy is equally clear in the increase of Hungarian exports to Czechoslovakia. After the coming into force of the extra-conventional system at the end of 1930, in the following year exports fell from 16.9 to 4.2 per cent. of the total exports. In 1931, total exports were 54.9 per cent. of the 1929 figure; for Czechoslovakia, the corresponding percentage was only 14. In 1937, the percentages were 56.7 for total exports and only 12.1 for Czechoslovakia. The trade policy as between the two countries blocked Hungarian exports to a neighbouring market, which had been one of the chief outlets, particularly for pigs.

A clear impression of the above facts may be obtained from the following table, which summarizes Hungarian exports and imports by groups of countries in 1929 and 1937.

TABLE V. — *Hungarian External Trade
with the Principal Groups of Countries.*

Countries	Percentage of the total			
	exports		imports	
	1929	1937	1929	1937
The signatories of the Rome Pact (Austria and Italy)	37.2	28.9	17.6	24.9
Austria and Germany	42.1	41.0	33.1	44.2
The neighbouring countries (Austria, Czechoslovakia, Romania, Yugoslavia)	57.1	26.9	48.8	38.5
Germany, signatories of the Rome Pact, and neighbouring countries (six countries)	75.8	62.9	73.1	71.7
Great Britain and U. S. A.	4.7	10.2	7.4	9.8

Imports and exports.

So far, it is the value of exports in pengoes that has been referred to, and the development of the export trade has been expressed in terms of the variations of this value. The *volume* of trade must also be taken into account.

The fact that Hungarian agricultural exports amounted to 18.5 million quintals in 1929 and 14.1 million quintals in 1937 is not conclusive, as these figures may have been affected by the possible increase or decrease in the quantities of certain bulky goods. The position is clearer, if a few typical Hungarian export products or groups of products are considered:—

TABLE VI. — *Exports of the Principal Hungarian Products.*

(in thousands of quintals)

Products	1929	1930	1931	1932	1933	1934	1935	1936	1937
Cattle	490.5	917.2	556.8	285.3	395.1	386.2	383.0	425.9	591.3
Pigs	273.1	248.5	105.4	116.9	159.5	125.9	183.1	175.4	165.3
Wheat	4,860.0	3,472.4	3,608.5	1,439.1	4,593.6	4,557.9	3,397.7	5,705.5	3,583.0
Wheat flour	2,624.2	2,300.9	1,246.9	398.0	491.5	492.0	526.7	541.7	578.4
Seeds	348.0	395.8	287.8	204.8	353.0	309.2	352.9	418.0	552.2
Poultry	147.5	222.1	237.0	179.7	232.2	269.4	253.5	205.9	261.2
Fruit	498.4	483.0	509.5	282.8	399.9	292.2	187.6	587.1	396.4
Vegetables	1,365.3	862.7	1,092.2	456.4	493.9	1,114.0	823.0	1,110.7	1,232.4

Exports of wheat and seasonal products naturally fluctuate according to harvests. The export of live animals, which was one of the most difficult problems during the depression, has made a satisfactory recovery. Trade in poultry and other "small products" has followed a course almost exactly contrary to the general tendency during the crisis; during the worst years these exports did relatively well.

The heavy drop in flour exports illustrates the present tendency of importing countries to introduce in the raw state the so called essential import products (when the national production of these commodities is insufficient), and to keep to themselves the economic advantage arising from transformation of the products. This trend has greatly affected many formerly prosperous branches of Hungarian agricultural industry, primarily milling. On the other hand, it has contributed to the establishment of new industries in the country.

An irrational distribution of economic effort in the world is a normal crisis phenomenon, but this time it is continuing, even after the end of the depression, throughout almost the whole world. Hungarian economy has not been an exception; Hungary cannot be reproached with having taken the ini-

tative in this respect; on the contrary, rather has she suffered the consequences of the events taking place in world economy.

Table VII shows the distribution of Hungarian imports and exports according to this aspect, *i.e.*, according to the economic categories of the products.

TABLE VII. — *Economic Categories of Exported and Imported Products.*

(in percentages of the total value)

Year	Exports			Imports		
	Raw materials	Wool products	Finished goods	Raw materials	Wool products	Finished good
1929	59.9	7.1	33.0	37.8	22.8	39.4
1930	59.2	8.1	32.7	39.2	22.6	38.2
1931	58.2	9.8	32.0	41.5	26.1	32.4
1932	58.5	8.6	32.9	42.4	28.4	29.1
1933	64.8	7.3	27.9	42.1	28.7	29.2
1934	61.8	8.7	29.5	43.1	29.9	27.0
1935	60.0	11.4	28.6	47.8	27.5	24.7
1936	61.4	10.1	28.5	45.2	29.1	25.7
1937	58.9	10.5	30.6	42.1	31.4	26.5

This survey of Hungarian exports during one of the most difficult periods of the world's economic history gives an example of a country which has passed successfully through the crisis years, thanks to a supreme putting out of every effort.

Hungary is a country without capital—her lack of which became still more acute during the troubled times following the world war—and her prosperity depends on the fertility of the soil. The importance of agriculture in her national life is paramount. It is for this reason that she has adopted the energetic agricultural policy which has been outlined in this article, and which has already attained considerable success.

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THE POPULATION QUESTION AND AGRICULTURE IN POLAND

The demographic question and its relations with agriculture is Poland's main economic and social problem.

In all discussions of an economic or social trend this problem constantly figures. In the course of the last few years it has become in some sense the touchstone of the different views held on social and economic policy, while the proposed solutions of the problem are of fundamental interest.

Before studying the problem in detail, it is desirable to state it in general terms.

Distribution of the population.

The distribution of the population by occupation and by town or country is as follows:—

TABLE I. — *Distribution of the Urban and Rural Population by Occupation according to the Census of 1931.*

Occupation	Urban Population	Rural Population	Total
	(1000's)	(1000's)	(1000's)
Agriculture	609.6	18,737.4	19,347.0
Industry	3,772.9	2,495.1	6,178.0
Trade	1,484.9	458.3	1,943.2
Transport	730.4	422.7	1,153.1
Miscellaneous	2,133.3	1,161.2	3,294.5

Hence in accordance with the latest census, the rural population forms 72.6 per cent. of the total population, and 60.6 per cent. of the total population are engaged in agriculture.

TABLE II. — *Increase per Thousand Inhabitants of the Population in Poland. Yearly Average.*

Districts	1895-1900	1921-1925	1926-1930	1931-1935
Poland	18.5	16.2	15.5	13.0
Provinces:				
Central	18.9	15.4	15.6	12.8
Eastern	17.5	20.7	20.0	15.8
Western	20.5	16.5	14.4	12.4
Southern	17.6	14.4	13.2	11.7

Out of the 19,347,000 persons engaged in agriculture, 16,464,400 are farmers and their families, while 2,852,600 are farm workers with their families.

The increase in the population in Poland as a whole and in the different regions is shown in Table II, the figures representing in each case the increase per 1,000 inhabitants.

It should be added that the urban population increases at a much slower rate than the rural.

The average annual increase of the population during the years 1931-35 was 426,000.

For the years 1921 and 1931 the numbers engaged in agriculture (including the wives of the heads of farms, etc.), per 100 hectares of productive agricultural area, is given in the following table:—

TABLE III. — *Number of Cultivators per 100 hectares of productive agricultural area.*

Districts	1931	1921
Poland	46.8	52.4
Southern Provinces:		
Cracow	71.1	98.8
Stanisławów	72.9	107.1
Lwów	78.2	99.1
Tarnopol	65.2	74.8
Central Provinces:		
Kielce	58.5	66.8
Łódź	53.4	56.0
Lublin	48.3	50.9
Warsaw	38.1	38.4
Eastern Provinces:		
Wolyń	47.4	45.2
Nowogródek	39.2	42.8
Białystok	35.4	41.4
Wilno	33.0	39.4
Polesie	30.5	31.1
Western Provinces:		
Poznań	26.4	28.2
Pomorze	26.4	26.8

Although the density of the rural population varies considerably according to the provinces, the number of inhabitants engaged in agriculture is very high throughout the whole of Poland. In the Eastern provinces this density is not higher than in Germany or in Czechoslovakia; in the Southern Central provinces, it is so high as to be almost without parallel in Europe.

The statistics show however that from 1921 to 1931 the surplus population has diminished, partly because lands not formerly farmed have been brought under cultivation, partly owing to emigration (although very limited), and

partly in consequence of a movement (although very slow) towards concentration of the population in the towns.

Without some study of climate, soil and crops, the statistics relating to the density of the rural population would be incomplete. A very dense rural population may be more advantageous from the economic standpoint—in certain conditions—than a much less dense population in other conditions.

There follows a short general study of the natural conditions of farming in the different parts of Poland.

Climatic conditions.

The climatic conditions of Poland may be indicated generally by stating that rainfall is much below the average of Central Europe, that there is too little sun, that the variations of temperature are of very considerable range, and that atmospheric conditions are variable and irregular. Certain data relating to the climate are reproduced in the table below:—

TABLE IV. — *Atmospheric Precipitations and Range of Variations in Temperature.*

Districts	Atmospheric precipitations in mm.	Range of variations of temperature
Southern Provinces:		
Cracow	766	8.9
Tarnów	736	9.2
Lwów	616	9.3
Central Provinces:		
Warsaw	640	8.6
Puławy	537	8.2
Eastern Provinces:		
Wilno	659	7.3
Pinsk	577	7.3
Western Provinces:		
Poznań	446	8.4

It may be noted that the more populous parts of Poland get more rain than the Northern provinces; these regions are thus more favoured climatically and can carry a denser agricultural population.

In an article devoted to other problems it is impracticable to make a study of the soil conditions determining agricultural conditions; especially as there are very great differences in the nature of the Polish soils, their humidity, altitude, etc. Some mention should however be made, without entering into detail, of the principal characteristics of the soils in the different groups of provinces.

In the northern part of the Central provinces, light and even sandy soils are mainly found; the Southern part includes very fertile regions, consisting partly of loess.

In the Southern provinces crossed by the mountain chain of the Carpathians, the land has very variable agricultural value. In the northern part, the soil is usually light and warm, and the fertility is above average; on the other hand in the southern section, in the mountains and the plains lying among the mountains, the land has moderate farming value only on account of the altitude.

Very varied conditions prevail in the Eastern provinces. In the south the Podolian plateau forms a prolongation of the southern part of the Central provinces; this area is in consequence very fertile and consists to a large extent of loess. In the Centre the Polesian marshland requires, before cultivation will be possible, immense improvement works which can only be effective if there is control of the water system of the Dnieper basin and if the U. S. S. R. undertakes similar works. The Northern provinces of this region have light and poor soils.

In the southern section of the provinces of the North of Poland, medium and light soils prevail and the land is well cultivated, while in the northern section the soils are heavy, cold and difficult to work.

Distribution of farms.

The purpose of these general considerations is to show all aspects of the problem of the rural overpopulation of Poland.

In this problem great importance attaches also to the distribution of farms according to size; and this from two points of view. Firstly, it is this distribution which determines conditions of farming and type of production; secondly, it is by improving this distribution that the excess population can be reduced and the problem resolved in the future. It has been seen that, out of 19,347,000

TABLE V. — *Distribution of Farms according to Size.*

Census of 1931.

(in thousands of farms).

Area	All Poland	Centre	South	East	West
<i>Total number of farms . . .</i>	3,196.4	978.9	1,045.9	1,010.9	170.7
Less than 2 ha.	747.1	108.5	455.3	111.3	19.2
2-5 ha.	1,136.2	251.4	372.2	359.2	33.6
5-10 "	728.8	199.6	95.3	300.3	44.0
10-15 "	191.0	64.4	12.1	83.6	30.9
15-50 "	118.2	18.0	3.9	52.3	33.0
Over 50 ha.	14.7	4.1	1.6	4.3	4.7
Area unknown	260.4	61.7	105.5	87.9	5.3

inhabitants engaged in farming, the group of farmers with their families was dominant and comprised 16,464,400 persons. There remains the question of the distribution of these farms according to size and to the conditions of farm work.

The figures of Table V should be supplemented by figures relating to the total area of the farms in each category as follows:

TABLE VI. — *Agricultural Area under Cultivation for each Size Group of Farms. Census of 1931.*

(in thousands of hectares).

Districts	Total	Farms Less than 50 ha.	Larger than 50 ha.	Areas belonging to corporate bodies
Poland	25,589	76.3	18.0	5.7
Southern Provinces:				
Cracow	1,198	87.4	7.3	5.3
Stanisławów	1,006	71.8	15.5	12.7
Lwów	1,965	76.1	13.5	10.4
Tarnopol	1,287	73.9	19.3	6.8
Central Provinces:				
Kielce	1,738	84.2	10.7	5.1
Łódź	1,394	80.7	16.2	3.1
Lublin	2,212	83.4	12.9	3.7
Warsaw	2,254	74.8	23.2	2.0
Eastern Provinces:				
Wołyń	2,207	81.9	11.1	7.0
Nowogródek	1,401	79.9	16.4	3.7
Białystok	2,007	86.8	9.3	3.9
Wilno	1,753	78.4	19.1	2.5
Polesie	1,899	68.4	22.0	9.6
Western Provinces:				
Poznań	1,965	52.6	41.4	6.0
Pomorze	1,063	60.0	33.6	6.4
Slask	240	70.9	23.4	5.7

Comparing the figures of Table VI with those of Table III, the relations may be noted between the number and the size taken together of the farms of less than 50 hectares, and the density of the rural population.

Demographic problem.

These being the basic elements of the demographic problem in Polish agriculture, in what directions should efforts be made with a view to rendering this problem less acute?

Two different methods of solution may be indicated.

There is the *external* solution—encouragement of emigration and of the rural exodus, in other words, of measures for inducing the peasants to enter upon occupations other than agriculture.

Alternatively what may be called the *internal* solution may be investigated; measures to be taken in respect of the redistribution of the land with the object as it were, of spreading out the surplus population.

The part played by emigration has lost importance since the war. The great immigration countries—the United States of America and South America—which formerly absorbed large numbers of emigrants, have either entirely or partially closed their frontiers to emigrants.

The seasonal migration to Germany and the Baltic countries has also greatly diminished. In short, emigration can at the present time contribute very little to the solution of the rural population problem.

TABLE VII. — *Emigration and Immigration in the period 1926 to 1937.*

(Annual averages in thousands).

	1926-1930	1931-1935	1936	1937
Emigrants	192.8	45.9	54.6	102.4
Returned emigrants	91.9	46.5	43.7	40.8
Balance	100.9	0.6	10.9	61.6

The percentage of urban population was 24 per cent. in 1921 and 27 per cent. in 1931. This small increase did not absorb the excess of rural population, which has greatly increased in these last ten years. The present situation might be altered by a very rapid industrialisation of Poland; such an industrialisation is desired by all but at present its progress is very slow.

Some relief, it is clear, might be obtained by the emigration of part of the urban population; which would make possible a larger exodus from the country to the town.

Other measures.

The principal measures to be taken within the country are as follows:—

- (1) increase of the area of land under cultivation;
- (2) consolidation of holdings;
- (3) increase in production;
- (4) changes in the distribution of holdings according to size, with a view to obtaining an optimum combination between density of rural population and the individual return from agricultural work.

Examining these four main groups of measures more closely, we may note that the increase in the area of cultivated land is a policy pursued by the Government for twenty years past. With the exception of the years 1932-33 during which there was a slight decrease in the area under cultivation, every year has closed with a further extension of the cultivated area. In 1928 there were 15,444,000 hectares of sown lands and in 1937, 17,422,000.

This increase of the cultivated area has been achieved by means of land improvements, the breaking up of common grazing lands the economic value of which was low, the improvement in the system of watercourses, and finally as the result of the drainage of marsh land, mainly in the Eastern provinces, in Polesia.

Excessive splitting of farm holdings has been met by the policy of consolidation of holdings.

TABLE VIII. — *Consolidation of Lands from 1920 to 1937.*

Year	Number of holdings in thousands	Area reparecelled in thousands of hectares
1920-1925	28.7	238.1
1926-1930	217.2	1,620.8
1931-1935	340.4	2,173.8
1936	86.2	471.6
1937	95.7	470.2
1920-1937	766.3	1,974.5

Along with the consolidation, steps were taken to abolish the various "servitudes" resulting from the land system of the previous century. In this way it was practicable to improve cultivation and to abolish a system prejudicial to the utilisation of forest land and meadows. The servitudes were a source of annoyance to the large landowners; they were abolished by means of payment of compensation in money or in land to the owners of small holdings who used to benefit by these rights. The small holders in particular used to enjoy certain rights, for example, the right of grazing their animals on the large estates on which the forefathers of the present day peasants had been bound to the soil before the reforms of the XIXth century. The liquidation of the servitudes has largely contributed to increasing the size of small holdings. The following table illustrates the extent of this reform as accomplished during recent years:—

TABLE IX. — *Abolition of Servitudes in 1920-37. Yearly Averages.*

Year	Number of holdings which have benefited from the abolition (in thousands)	Area of lands granted in liquidation of servitudes (in thousands of hectares)	Money compensation granted on same basis (in thousands of zloty)
1920-1925	3.5	8.5	0.8
1926-1930	30.2	81.5	474.6
1931-1935	17.9	24.4	252.3
1936	9.4	11.6	43.3
1937	6.6	4.7	114.2

Agrarian reform.

Discussion of the problem of agrarian reform, properly so called, has been purposely left to the end of this article, as its importance only stands out clearly after a consideration of the relative success of other means of reducing the density of the rural population.

The first Law on Agrarian Reform was adopted by the Polish Parliament on July 15, 1920. It remained in force without serious modifications up to December 28, 1935, on which date a new agrarian reform law was passed by Parliament. Various additions and amendments have been made to the original text of the law nearly every year since its introduction; the text as it stands at present will be examined here.

The object of the law is to reduce agricultural unemployment, to enlarge very small holdings, and to redistribute land so as to employ as much labour as possible while obtaining the maximum economic return per hectare.

Provision is made in the law for the compulsory partition of large holdings, in particular those belonging to the State or to corporate bodies, mortmain lands and private estates if of an area exceeding 60 hectares near towns or 180 hectares in country districts.

The aggregate of the areas of these various categories of holdings forms the area to which the agrarian reform law is applicable. Excluded are: estates of an area less than 180 ha. (60 if near a town); with forests, building land, gardens and pools enclosed in estates of over 180 ha. In certain circumstances, the maximum of 180 ha. may be raised for the purpose of a special period of crop or for the exercise of an agricultural industry.

A plan for the partition of lands in the current year is prepared every year. Lands voluntarily partitioned by private owners and lands belonging to the State or to corporate bodies are deducted from the figures of area as shown in the annual plan. Lands to be partitioned are compulsorily purchased by the State from the private owners and divided out among: (1) the peasants working on the lands so partitioned; (2) dwarf holdings in the neighbourhood; (3) other persons.

Compulsory State purchase takes place if, in the course of the year, the area voluntarily partitioned by the owners of farm holdings of an area exceeding the maximum, does not attain the total area prescribed in the scheme.

If necessary, a list of the lands to be partitioned is drawn up by the Minister of Agriculture and Agrarian Reform; the lands enumerated on this list are subjected to compulsory purchase at prices fixed by the law.

The holdings formed by the partitioning may not exceed an area of 20 ha. except in the Northern provinces and in mountainous regions where they may be as much as 35 hectares.

The Minister of Agriculture and Agrarian Reform decides, within the limits prescribed by the law, what shall be the area of holdings thus newly formed.

The law of December 28, 1935 prescribes an order of preference of persons wishing to benefit by the new holdings.

Peasants working on the estate come first; in the event of the partitioned area not being sufficient to enlarge the dwarf holdings of the neighbourhood, the peasants may receive lands from another partitioned estate. Preference is given to small holdings of 1 to 5 hectares, which from their small area cannot be cultivated profitably. Only after local needs are satisfied may other persons benefit by a partition.

In districts where the population is less dense, the lands are divided among peasants coming from districts where the density is specially high. For example, the estates partitioned in Pomorze have been in a large measure distributed to the peasants of the Southern provinces.

Advantage is taken of partition to carry out improvement of the whole land system of the neighbourhood: e. g., abolition of servitudes if chargeable on the estate partitioned, consolidation of holdings, partitioning of the woods and grazing lands belonging to the communities, more especially in the provinces of the East and South.

The extent of the partitioning effected in application of the agrarian reform is illustrated by the following figures:—

TABLE X. — *The Agrarian Reform - Annual Average Partitionings 1920-37.*

Years	Farm holdings formed in thousands	Area partitioned in thousands hectares
1920-1925	36.9	187.4
1926-1930	60.9	195.6
1931-1935	27.8	79.8
1936	28.5	96.5
1937	37.7	113.1
1920-1937	694.3	2,523.8

The partitioning of lands as between the groups of provinces and the beneficiaries is illustrated by Table XI.

Comparing the total area of land under cultivation (not including forests and grazing land), in all 25,589,000 ha., with the partitioned area, it will be seen that in recent years much has been accomplished for the improved distribution of landed property.

What is the future of the Agrarian Reform?

The areas not partitioned, but liable to be so in application of the Law, amount at present to 826,300 ha., that is, one third of the area already partitioned during the last twenty years. These lands are distributed among the provinces as shown in Table XII.

In addition to this area, obviously insufficient for the complete solution of the question of the excess rural population, an area of about 1,300,000 ha.

TABLE XI. — *The Agrarian Reform — Division of lands 1919-1938.*
Farm Holdings formed by Partitioning.

(Number of farms in thousands).

Classification	Poland	Provinces of the			
		Centre	East	South	North
New holdings	145.6	56.2	47.0	26.0	16.4
Enlargement of former holdings	476.4	124.9	146.5	175.0	30.0
Special colonies	3.6	1.6	0.5	0.8	0.7
Workers' plots etc.	70.8	36.9	6.0	8.7	19.2
Total	694.4	219.6	200.5	210.5	66.3

Area in thousands of ha.

New holdings	1,366.9	467.8	575.5	124.6	198.8
Enlargement of former holdings	958.5	285.6	367.0	224.3	81.6
Special colonies	55.0	26.9	4.6	5.6	17.9
Workers' plots etc.	68.9	22.0	16.1	11.7	19.1
Total	2,535.6	827.9	977.8	382.6	347.3

of collective estates and others might also be utilised for the improvement of the position of the very small holdings.

Progress in land improvement, in consolidation of holdings, and in raising the standard of farming technique represents—apart from the area which may still be partitioned—the only means of solving the problem of rural over-population by measures properly speaking agricultural.

TABLE XII. — *Total Area of Lands Liable to Partitioning.*

(in hectares).

Southern Provinces	141,400
Eastern "	63,400
Central "	256,400
Western "	371,100
Total	826,300

Industrialisation as a solution of the problem of over-population.

Such measures will palliate the evil, indeed altogether eliminate it for a great part of the rural population. But the general problem of the rural over-population can only be definitively resolved by a very rapid industrialisation

of Poland. That movement, interrupted by the economic crisis, is at present the central point of the Government's economic policy. Industrialisation has been rendered easier of accomplishment by the Agrarian Reform and it may yet resolve the problem of over-population which in Poland is more acute than in any other European country.

A. JALOWIECKI.

INTERNATIONAL CHRONICLE OF AGRICULTURE

UNITED STATES

An extraordinary recovery in American security markets since the beginning of June has changed the economic outlook in the United States. This recovery has not yet been reflected to nearly the same extent in other branches of activity, but the security market plays such an important role in the United States in setting the pace for general revival that it cannot be neglected even when it comes to surveying agricultural conditions.

This recovery is all the more striking if the intensity of the depression of the past year or so is taken into account. Seldom if ever has there been a setback so severe in a period so short. The slump in the United States, the world's largest consumer (and one of the largest producers) of primary commodities, was adversely affecting both current conditions and future prospects in every part of the world. Examination of the relevant indices will show that the 1937-38 slump considering its short duration, was even more severe than that which began in October 1929.

Monthly Business Indexes ().*

Average: January to April	Industrial Produc- tion (1)	No. of factory employees (1)	Amount of factory payrolls (1)	Depart- ment store sales (1)	Rural general merchan- dise sales (2)	Exports (1)	Imports (1)	Income Payments (3)
1929. . . .	122	103.2	109.0	98	110.5	122	110	97.7
1933. . . .	64	62.7	39.7	54	50.3	29	28	54.8
1934. . . .	84	82.0	62.4	66	71.0	46	44	63.6
1935. . . .	113	85.0	69.6	68	85.6	45	52	68.7
1936. . . .	98	87.7	76.1	73	92.2	51	61	75.3
1937. . . .	118	99.7	98.1	82	104.1	65	86	83.9
1938. . . .	79	81.4	72.2	76	95.8	73	52	78.6

(*) U. S. Dept. of Commerce. — (1) Monthly average 1923-25 = 100. — (2) Monthly average 1929-31 = 100. — (3) Monthly average 1926 = 100.

Agricultural conditions are in striking contrast to a year ago. Last year, field crops had a poor start, supplies of grain and hay were low, and farmers were behind with spring work. But prices were high, the season developed favourably, and produc-

tion of crops was the largest on record. This year the chief expansion seems to be in livestock and poultry. Prices of farm products generally are low, and supplies of feed grains and hay are unusually large.

Indices of Commodity Prices.

Average: January to April	Combined Index, 813 commodities (1)	Farm Products (1)				Cost of Living (2)	Farm Prices (3)	Retail Food Prices (4)
		All	Grains	Foods	Meats			
1929	95.7	105.9	98.4	98.3	107.0	99.4	146	101.8
1933	60.4	42.7	36.6	55.1	50.1	72.4	57	60.7
1934	73.2	60.2	62.0	66.1	54.0	78.4	82	72.0
1935	79.5	78.9	86.7	82.3	88.9	82.0	109	79.5
1936	80.1	77.8	76.7	81.8	91.9	83.5	107	80.4
1937	87.0	92.3	114.2	86.8	92.0	87.6	129	85.0
1938	79.8	70.0	70.8	73.9	81.2	86.9	97	79.2

(1) U. S. Dept. of Labour; monthly average 1926 = 100. — (2) National Industrial Conference Board; monthly average 1923 = 100. — (3) U. S. Dept. of Labour, combined index, monthly average 1909-14 = 100. — (4) U. S. Dept. of Labour, monthly average 1923-25 = 100.

Index Numbers of Prices Received and Paid by Farmers.

(1910-14 = 100)

Year and month	Prices received	Prices paid	Buying power of farm products (1)
1937			
May	128	134	96
June	124	134	93
July	125	133	94
August	123	132	93
September	118	130	91
October	112	128	88
November	107	127	84
December	104	126	83
1938			
January	102	126	81
February	97	126	77
March	96	125	77
April	94	125	75
May	92	125	74

(1) Ratio of prices received to prices paid.

Income from farm marketings during the first four months of 1938 was \$2,059,000,000 or 11 per cent. below the value for the corresponding period in 1937. Government payments to farmers showed a much larger decline, from \$ 270,000,000 to \$ 168,000,000 for the first four months of 1937 and 1938 respectively.

A favourable element in the outlook is that consumer buying power will get greater direct help from the Government—both through relief channels and by payments to farmers—than in the corresponding period of 1937. There will be an increase in Government spending through other channels, including \$ 600,000,000 on public works. The Government is also increasing its direct purchase of commodities through the Surplus Commodities Corporation and other agencies.

With regard to the principal crops, the situation is as follows:

The total area under *wheat* in 1938 amounts to just over 71 million acres, and the production is expected to reach 26.3 million tons, compared with 23.8 million in 1937 and 16.8 million on the average for 1932-36. Thus, in spite of the losses caused by rust in winter wheat, the total wheat crop is very large.

The *maize* area reaches 92.1 million acres and the expected production amounts to over 63 million tons, as against 76.2 million in 1937 and 53.9 million on the average for 1932-36.

The *cotton* area is estimated at 26.9 million acres, as compared with 34.5 million in 1937 and 32.8 million on the average for 1932-36.

Changes in the 1938 Farm Programme.

The Agricultural Adjustment Administration (AAA) announced on February 27 1938 changes in their 1938 farm programme to bring it into conformity with specific provisions of the Agricultural Adjustment Act of 1938, which was described in the March number of this *Bulletin*. The new points can be summarised as follows:

- (a) Provisions for allocating the 1938 wheat acreage allotment established in the new Act.
- (b) Establishment of a 12 cents per bushel payment to wheat farmers cooperating in the programme, within the individual farmer's wheat allotment (at the normal yield per acre of the farm).
- (c) Revision of some of the previously announced rates of payment so as to carry out the formula of the new Act for allocating the total national payment between the different commodities.
- (d) Slight revisions of some of the national acreage goals already announced.
- (e) Classification of farms into two groups, according to whether they are in areas producing a surplus or a deficit of food and fodder crops.
- (f) Establishment of a "restoration land goal" of 6 million acres.

Changes in Rates of Payment and National Acreage Goals. — Rates of payment and national acreage goals were changed slightly at the end of February, shortly after the 1938 Act was signed (1).

(1) See this *Bulletin* for March 1938, p. 161.

The new data are set forth in the following table:

Crop	1938 "Goal" (acres)	Rate of payment per acre or per unit of yield per acre
Corn (maize)	94,000,000 to 97,000,000	10 cents per bushel
Cotton	27,000,000 to 29,000,000	2.4 » per lb.
Rice	825,000 to 875,000	0.125 » »
Tobacco:		
Flue-cured.	850,000 to 875,000	1.0 cent »
Burley	450,000 to 475,000	0.5 » »
Fire-cured and dark air-cured . .	170,000 to 180,000	1.5 cents »
Cigar filler and binder	85,000 to 90,000	1.0 » »
Georgia-Florida type 62	2,800 to 3,000	1.6 » »
Peanuts	1,500,000 to 1,600,000	0.2 » »
Potatoes	3,100,000 to 3,300,000	3.0 (3) » per bushel
Wheat (1)	55,000,000	12. » »
General soil-depleting (2)	145,000,000 to 155,000,000	\$ 1.50 per acre, varied for productivity
All soil-depleting (2)	273,000,000 to 288,000,000	

Increases in Small Payments. — In addition to the rates listed in the table above, payments to producers on small farms will be increased by 40 per cent. The rate of increase is reduced as total payments increase, but there is some increase for all payments under \$ 200. The effect of the increase in small payments will be to increase the basic rates of payment by 8 to 10 per cent.

Classification of Farms. — A new distinction is made between farms, based on the different good land-use requirements of areas which produce food and fodder crops for market, and areas which produce these crops primarily for consumption on the farm.

Assignment of Title to Payments. — Any farmer entitled to a payment in 1938 may assign this as security for an advance to be used in making a crop in 1938.

Amendments to the Agricultural Adjustment Act of 1938.

A Bill embodying amendments to the A. A. A. of 1938 was signed by the President on 7 April 1938.

It provided for an increase in the cotton acreage of each State by 4 per cent., to correct certain inequities. The original allotment under the A. A. A. was 26.3 million acres, and the total increase due to this amendment may exceed 2 millions. Farmers who do not use all the cotton acreage allotted to them can, under the amendment, permit the A. A. A. to reallocate the unused acreage to other farmers within the State.

(1) See section on wheat below. — (2) Excluding wheat. — (3) See Amendments to A. A. A. below, item C.

It increased the flue-cured tobacco acreage allotment and the marketing quota of each State by 2 per cent. This may increase the national marketing quota for flue-cured tobacco from 705 to 719 million lb.

The Act fixes Federal benefit payments for potatoes in early areas at 5.4 cents per bushel, and in late areas at 3.6 cents, instead of a flat 3 cents in all areas (as indicated in the table above).

It also fixes a 5000 acre minimum for cotton in the States in which cotton production has been 3,500 bales annually.

It makes eligible for Federal cotton price adjustment payments any farmer whose commodity was destroyed by fire or flood.

Wheat. — Wheat is added to the list of soil-depleting crops for which special acreage allotments are established. No wheat acreage allotment will be assigned to farms in deficit food and feed crop areas. For farmers with wheat acreage allotments, the number of acres in the allotment will be one of the items in the total payment, and the rate will be 12 cents per bushel on the normal yield of the farm. Wheat acreage on each farm is to be included in the total soil-depleting crop acreage. Therefore if a farmer's wheat acreage exceeds allotment, his payments would not be affected if he makes a corresponding reduction in acreage of other soil depleting crops.

The allotment of 55 million acres given in the table above is the minimum figure for 1939, fixed under a resolution adopted by the Senate and House on June 13, 1938. Under previously existing legislation, 1939 wheat acreage would have had to be reduced to between 42 and 47 million acres, if the surplus of August 1, 1938 exceeded 400 million bushels. Acreage planted for 1938 totalled about 80 millions, greatly exceeding the 62.5 millions national allotment fixed by the A. A. A. after the winter wheat crop was seeded while a surplus for August 1, of 500 million bushels was forecast.

A surplus of 500 million bushels, was thus forecast for August 1, 1938 and a carryover into 1939 of 375 millions, after calculation of probable domestic requirements and exports. Under the Act, the Secretary of Agriculture is directed to fix acreage allotments at a figure which will supply domestic requirements and exports and provide a 30 per cent. carryover. With the 375 million carryover estimated, only 600 million bushels would be required next year to meet the terms of the law. It is estimated that this amount could be grown on 50 million acres, and the 1939 acreage allotment is thus fixed at 55 millions, presumably to be on the safe side.

Referendums on Marketing Quotas.

COTTON AND TOBACCO.

The marketing quotas provided for under the Agricultural Adjustment Act (described in the March 1938 Bulletin, p. 157) only come into effect if they are approved by a two-thirds majority of the producers voting under a referendum. Referendums on the cotton, flue-cured tobacco, and fire-cured and dark-air-cured tobacco quotas took place on March 12, and the majority in favour was 92.1, 86.2 and 80.6 per cent. respectively. The marketing year for cotton begins on August 1, for flue-cured tobacco on July 1, and for the dark tobaccos on October 1.

The quotas represent the amounts of the 1938 crop which can be marketed free of penalty in interstate and foreign commerce. A national cotton allotment of 10,000,000 standard bales was proclaimed for 1938, and presumably this must be adjusted in conformity with changes in the cotton acreage mentioned above. A penalty of two cents

per lb. must be paid on cotton marketed in excess of a grower's allotment. The national marketing quota for flue-cured tobacco was originally proclaimed at 705 million lb. and was increased to 719 million. The penalty on sales in excess of growers' quotas is equal to half the market price of the tobacco at the time of sale, with a minimum of 3 cents per lb. for flue-cured and 2 cents per lb. for dark tobacco. The Burley tobacco marketing referendum was held on April 9, 1938, and 87.1 per cent. of the votes were in favour. Consequently, the Burley tobacco marketing quota of 350 million lb. proclaimed by the Secretary of Agriculture on March 29, 1938 will be in effect during the marketing year beginning October 1, 1938.

WHEAT.

The Secretary of Agriculture announced on May 20, 1938 that since funds for making parity payments on wheat had not been provided, no marketing quotas would be established for the 1938 wheat crop.

The Agricultural Adjustment Act of 1938 sets May 15 as the latest date for establishing a national wheat marketing quota, subject to a referendum by wheat growers. The law also provides that no wheat quotas can be in effect during the marketing year beginning July 1, 1938 unless provisions for parity payments in connection with the 1938 wheat crop have been made prior to May 15 the latest date for proclaiming a wheat marketing quota.

The Farm Act (Section 335) provides that when the total supply of wheat, as at the beginning of any marketing year, is estimated to exceed a normal year's domestic consumption and exports by more than 35 per cent., the Secretary shall proclaim the fact not later than May 15 prior to the beginning of that marketing year. Following such a proclamation, a national marketing quota automatically goes into effect for the marketing year beginning July 1.

The May report of the Division of Crop Estimates indicated that the total supply of wheat would be in excess of the amount set forth in the Act as the requirement for marketing quotas. However, no provisions for parity payments with respect to the 1938 crop of wheat were made prior to May 15, and consequently no marketing quotas on wheat will be put into effect for the marketing year beginning July 1, 1938.

OTHER COMMODITIES.

Wheat is the only crop for which marketing quotas this year are contingent upon provisions for parity payments. Establishment of a marketing quota for corn (maize), subject to a referendum by growers, depends on the estimate of total supply made following the August crop report. The Agricultural Adjustment Act of 1938 provides, that there shall be no marketing quota for rice this year, or for cigar-filler tobacco Type 41, for this year or next year.

Loans on Commodities.

WOOL.

The Secretary of Agriculture announced on 12 March 1938 that a \$ 50,000,000 wool loan programme for wool producers on their 1937 and 1938 production has been approved by the Commodity Credit Corporation and the President. The loans, which

are to be made available in accordance with the provisions of the Agricultural Adjustment Act of 1938 are intended particularly to aid wool producers in marketing their 1938 clip.

The loans will be available to all producers including, under approved regulations, producer-owned pools. The loans on the principal classes of wool will be made at between 15 and 22 cents a pound on a grease basis at Boston. The approved programme authorises loans on 250 million pounds of wool. Loans will be made only after wool has been classified and warehoused under supervision of the Commodity Credit Corporation.

It is pointed out that, although no specific loan rates for wool were authorised in the Agricultural Adjustment Act of 1938, the proposed rates are comparable to the maximum rates authorised in the Act for cotton, wheat, and corn.

It is emphasised that the loan is not a price-fixing loan, but a marketing loan designed to protect wool producers against the effect of unfavourable conditions in the wool industry while the 1938 clip is moving to market. Present wool prices are considered to be unduly depressed and the rates of loan established would enable producers to market their wool in an orderly manner and at better prices than they would receive if they had to sell all their wool at shearing time.

The loans are to be made for a ten-month period, with May 31, 1939 the final maturity date. The loans will bear interest at 4 per cent. Banks and other lending agencies may make loans at the same rate (up to October 31, 1938) and may sell the notes to the C.C.C. on the basis of 2 ½ per cent. net to the bank.

Although loans will be made for a ten-month period, producers may sell the wool at any time by repaying the loans and accrued storage charges.

MOHAIR.

The C.C.C. announced on April 13, 1938 that as a part of the wool loan programme, loans would be made to aid mohair producers in marketing their 1937 and 1938 clips, at 30 and 20 cents per lb. respectively for kid and adult hair stored at Boston and Texas points, and 29 and 19 cents per lb. at other points, grease basis. The loans will be handled in substantially the same manner as in the case of wool loans, described above. They will be made available between April 13 and November 15, 1938, and must mature within ten months, but not later than May 31, 1939. A limit of 3,000,000 is fixed on the amount that may be lent. This sum will permit loans on a maximum of 10 million lb. of mohair.

WHEAT.

The Secretary of Agriculture, announced on July 14, 1938 that \$100,000,000 would be made available in loans to farmers through the C.C.C. so that 130,000,000 bushels of this year's crop may be stored and the price thus protected.

The rate for the loans will average between 59 and 60 cents per bushels on the farm. The loans will be made only to producers conforming to the requirements of the Administration in tillage and soil conservation.

CAPITAL STRUCTURE OF COMMODITY CREDIT CORPORATION.

A Bill passed by Congress and signed by the President on March 8 provides for an appraisal of the assets and liabilities of the Commodity Credit Corporation (CCC) "for the purpose of determining the net worth of the Corporation". If the appraisal estab-

lished this at less than \$100,000,000, the Secretary of the Treasury is to make up the difference and this Bill authorises an annual appropriation out of Treasury funds for this purpose.

Accordingly the President on May 20, 1938 asked Congress for \$94,285,400 to restore the impaired capital of the C. C. C. This was necessary, it was stated, because falling prices had reduced the value of commodities to a level far below that at which the loans were made. According to a communication from the Secretary of the Treasury to the President, an appraisal of assets and liabilities of the C. C. C. showed their net worth to be \$5,714,600 on the basis of market prices on March 31, 1938. The total market value of its stocks of various commodities was \$258,317,000 and the estimated loss was \$61,000,000. The C. C. C. lost \$58,000,000 on cotton (valued at \$114,000,000) from 1934 to 1938, only \$2,570 on maize (valued at \$437,000), \$1,724,000 on tobacco (valued at nearly 4 millions) and \$442,800 on turpentine (valued at over one million).

Government Purchase of Surplus Farm Products for Relief.

The Federal Surplus Commodities Corporation (F. S. C. C.) has continued in all parts of the country its purchases of surplus farm products of every kind. The object is to divert excess supplies by distributing them to needy persons on a relief basis.

The wide extent of the operations of the F. S. C. C. and its importance in the produce markets can be gauged from the following details:

Dairy Produce. — On March 14 it was announced that awards had been made for the supply of 5 million pounds of skimmed milk. On April 5 it was announced that about 4 million pounds of butter had been purchased since February 14, all of which had been allocated to State agencies for relief distribution. On the same date, bids were invited for the supply of another 5 million pounds of skimmed milk. On May 31 bids were invited for a further 8 million pounds. This action was stated to be prompted by the continuance of record high production, the accumulation of stocks, and low prices.

Market Garden Produce. — On March 25 it was announced that since the beginning of the year just under one million cases of surplus canned peas were purchased by the F. S. C. C. for relief distribution. It is stated that purchases seek to expand consumption of the 1937 output and to improve selling conditions for the new crop. About 11,000 tons of early cabbage (valued at \$128,300) were purchased up to May 11 in seven States. Nearly 4,000 carloads of surplus late potatoes were purchased from the autumn of 1937 up to the end of April, and in May it was announced that early Irish potatoes would be purchased.

Rice. — During the five months up to the end of April 1938, 70,550,000 pounds of milled rice were bought by the F. S. C. C. and distributed for relief throughout the country. The programme is to be continued since large supplies are stated still to remain in producers' hands.

Flour. — In response to requests from relief authorities in Illinois and Ohio, the F. S. C. C. bought 7,000 barrels of flour up to May 20, and will probably buy more.

Dried Fruits. — On April 5 it was announced that the F. S. C. C. had arranged to buy 13,500 tons of standard quality dried California prunes of the 1936 and 1937

crops from packers who purchase equivalent quantities of natural condition dry prunes from the Prune Credit Corporation of California, which was organised recently to aid in handling current surpluses.

DIVERSION OF SURPLUS ORANGES TO BY-PRODUCT USES.

A programme designed to stimulate domestic consumption of California and Arizona oranges through diversion from regular trade channels to designated by-product uses was announced on April 12, 1938 by the Agricultural Adjustment Administration.

The programme calls for the diversion of not more than 61,000 tons of oranges, grading U. S. No. 3 or better, and payments totalling up to \$488,000 have been authorised for the purpose. The 61,000 tons is equivalent to approximately 1,628,000 boxes of oranges.

The Citrus Diversion Association has been organised to administer the programme and to make individual contracts with growers and handlers. They will receive payments amounting to \$8 per short ton of oranges diverted for the following uses; concentrated juices, pulpy orange juice; pectin; citrus oil; and dried meal.

Allocations for diversion may be suspended for any week if during the previous two weeks the average price of California oranges sold at auction on 10 specified Eastern markets exceeds \$3.05 per box. No deliveries are to be made after June 30, 1938. Diversion of all oranges into the by-products named must be completed by July 31, 1938.

United States production of oranges during the 1937-38 season is estimated at 70,600,000 boxes, which is more than 15,500,000 boxes larger than last year's crop and 33 per cent. in excess of average production during the five-year period ending in 1935-36.

Wool Futures Transactions.

A bill extending the Commodity Exchange Act to include wool tops was signed by the President on April 7. Hitherto, this Act embraced cotton, rice, butter, eggs, potatoes, mill feeds, and all grains (1).

Trading in wool tops futures is conducted on an exchange called "Wool Associates of the New York Cotton Exchange, Inc.". Trading began on May 1, 1931, and since that time has risen steadily from 3,360,000 lb. in 1931 to over 31,000,000 lb. in the year ending December 31, 1937.

II. — MEASURES AFFECTING AGRICULTURAL ECONOMY IN GENERAL

Conservation of Natural Resources.

In a message to Congress on March 10 1938, the President transmitted a report of the National Resources Committee, which recommends a six-year construction and investigation programme "for the utilisation and conservation of the Nation's water

(1) The Act now specifies "wheat, cotton, rice, corn, oats, barley, rye, flaxseed, grain sorghums, mill feeds, butter, eggs, Irish potatoes, and wool tops".

resources and a unified policy of water control and development." This programme would involve a total cost of \$2,111,091,000, and includes \$891,091,000 of Federal projects, the remainder being non-Federal projects to be financed largely by the States and their political subdivisions. The former amount represents about the same amount as has been spent in the last six years for work of this kind (see table below). Of the latter amount, it is recommended that \$560,000,000 be devoted to water supply and \$660,000,000 for sewerage and pollution abatement. This also corresponds to average expenditure over the last six years.

A summary of the cost of the recommended Federal programme is given below (of the total \$43,381,000 would be for investigation and the remainder for construction):

Class of Work	Time	Total
Flood control, Ohio and Lower Mississippi Rivers	2 years	\$ 81,226,000
Tennessee Valley Authority programme	2 ..	\$ 75,061,000
General Flood Control	6 years	\$ 184,629,000
Irrigation	6 ..	\$ 291,532,000
Water power.	6 ..	\$ 3,650,000
Rivers and harbours	6 ..	\$ 180,575,000
Rural water supply.	6 ..	\$ 33,495,000
Beach erosion control.	6 ..	\$ 14,399,000
Recreational waters	6 ..	\$ 5,158,000
Wild life conservation	6 ..	\$ 8,523,000
Hydrologic data	6 ..	\$ 12,796,000
Total		\$ 891,091,000
Weighted average per year		\$ 200,624,000

Crop Insurance.

The Federal Crop Insurance Corporation (F. C. I. C.) was created under the Agricultural Adjustment Act of 1938, with a capital of \$100,000,000. The first operations permitted to the F. C. I. C. are the insurance of the 1939 wheat crop, which farmers may insure at either 75 or 50 per cent. of the average yield established for their farms.

The crop insurance premiums are payable in wheat, or in the cash equivalent of the wheat at the time the premium is paid. These premiums are payable in advance of seeding. Any losses which may be paid to farmers are also payable in wheat, or in the cash equivalent at the time the loss is paid.

The crop insurance regulations provide for a minimum rate of one-half bushel per acre for an insured percentage of 75, and a minimum rate of three-tenths bushel per acre for an insured percentage of 50.

The insurance policy is essentially an all-risk policy, *i. e.* against loss in yield of wheat due to drought, flood, hail, wind, frost, lightning, fire, tornado, storm, insect infestation, animal pests, plant disease, excessive or deficient moisture, incursions of animals, and any other unavoidable cause not specifically excluded.

The insurance does not cover damage in quality, or loss in yield caused by over-pasturing or by neglect on the part of anyone connected with the operation of the holding. It does not cover loss from theft, overplanting, use of defective seed, failure properly to prepare the land for seeding, or properly to seed, harvest or thresh, or care for the insured crop, or failure to reseed where necessary.

SWEDEN

The noticeable improvement in the economic conditions of Swedish agriculture during recent years may be attributed to favourable weather, to technical advances made in farming, and to the decidedly favourable industrial and economic situation of the country. Unemployment has been practically eliminated by industrial prosperity, which has increased the purchasing power of the population, the consumption of the more costly animal products and the ability to pay the higher prices asked for the latter.

Measures taken by the State have also contributed to the very perceptible improvement in the economic situation of agriculture.

During these last few years there has been a considerable rise in the level of prices of agricultural products. The price index compiled by the Swedish General Agricultural Society (1925=100) had fallen to 65 and 64 during the worst years of the crisis, 1932 and 1933; from that time on it steadily rose, reaching 85 and 90 during the years 1936 and 1937 respectively, and the mean of 93 for the first five months of the current year. In other words there has been since 1932 a rise in the level of these prices of nearly 50 per cent.

The increase in the volume of production, the price rise in farm products and the various measures of scientific organisation, one of the most important of these being the reduction of the amount of labour required, are all factors which have considerably increased the *profitability* of Swedish agriculture. This is evident from the farm accountancy results, published by the Swedish General Agricultural Society, for a large number of farms in the central and southern parts of Sweden for the period of depression 1929-34 and for the three subsequent farming years:

*Average Net Return (in percentage of invested capital) of Farms
in Southern and Central Sweden.*

	1929-34	1934-35	1935-36	1936-37
Central Sweden	0.9	4.0	3.4	3.4
Southern Sweden	3.2	6.1	5.7	5.8

I. — MEASURES RELATING TO MARKETS AND PRICES

In the first years of the crisis there was no uniform scheme of intervention on the market or in respect of agricultural prices.

From about 1934 there was a beginning of coordination, in accordance with certain general principles, of the various isolated measures for remedying the effects of the crisis. All products regulated, with the exception of sugar, were made the subject of a single provision by Parliament, and an endeavour was made to distribute State aid equitably

between the various branches of production by reference to a level of prices regarded as comparatively satisfactory before the crisis, namely that of 1925-1929.

The main objectives of the new measures were to regulate importation so as to reserve as far as possible to national products the absorption capacity of the Swedish market and on the other hand, to promote the warehousing and especially the export of agricultural products (1).

During the last two farming years all these measures remained, in principle, unchanged, with the exception of certain reforms relating to cereals. For the farming year in course, 1938-39, no important changes were made by the Parliament of 1938. Since, however, Sweden has not yet appeared in the International Chronicle of Agriculture, it seems desirable to give here a short account of the main agricultural measures now in force, passed with the object of remedying the effects of the crisis.

Regulation of the breadstuff cereals market.

Export Certificates for Wheat and Rye. — The first measures taken in Sweden after the great war for the protection of the breadstuff cereals market was the introduction by the Diet of 1926 of export certificates for wheat and rye. This measure was in force in its main lines till July 1937, when a Royal Order of June 11, 1937, No. 369, substituted the system now in force. In virtue of this latter Order, any person exporting from Sweden at any one time as much as 500 kg. of Swedish or foreign wheat or rye unmilled and of ordinary quality, is entitled to obtain from the Customs authorities an export certificate on all or on part of the quantity exported. This certificate indicates the total customs duty which would have to be paid for the import of an identical quantity. Against presentation of this certificate within a prescribed period, the holder is empowered either to import free of duty the quantity there indicated of rye or wheat, whether milled or not or, under certain conditions, to obtain the repayment of the relevant duty. The Government, since this Order, has the right to decide not only whether certificated will be issued but also if they shall relate to all the quantity exported or only to a part thereof; and it has established by the Decree of August 23, 1937 (No. 768) that the export certificates for all the quantity exported shall be issued exclusively for breadstuff cereals of foreign origin. As regards Swedish cereals, the export certificate is issued only for half of the quantity exported.

Compulsory Admixture. — With a view to a stricter maintenance of a uniform bread production than could be secured only by the export certificates just mentioned and by customs protection, in 1930 the Diet introduced the compulsory use of Swedish wheat and rye in flour manufacture. The detailed provisions were published in the Royal Order of June 13, 1930, No. 249, still in force with slight modifications. The substance of the rule is as follows: the miller grinding foreign wheat or rye must, with certain exceptions, use Swedish cereals also, the quantity to be used to correspond to a proportion, fixed by the Government in respect of each milling period established by it. When milling wheat flour (but not rye flour), the miller is also expected, with certain specified exceptions, to see that each lot of milled wheat contains a certain minimum proportion, fixed by the Government, of Swedish wheat. The

(1) For these measures, see the articles on Sweden in the volumes of the Economic Commentary from 1929-30 to 1935-36.

flour importer is, expected to mix Swedish flour with the imported flour while the flour is still under the supervision of the customs authorities, and the admixture is to be in the same proportion as that observed within the country for the mixing of Swedish wheat or rye for milling with foreign wheat or rye. When, in the autumn of 1930, the obligation of admixture was introduced, the country was not producing enough to meet its own needs, and the percentage was fixed at 60 per cent. for wheat and 70 per cent. for rye; but during a great part of 1933 and 1934 it was 100 and 98 per cent. respectively; for the period from July 1 to August 31 1938 (Royal Decree of 17 June 1938) it has been fixed for the two cereals at 90 per cent. The minimum rate (see above) for the same period has been fixed at 80 per cent.

Import Licences for Breadstuff Cereals and their Derivatives. — These licences, which came into force in 1931, represent a further measure for limiting the importation of breadstuff cereals. It is prohibited, in virtue of the more detailed provisions of the Royal Order of August 21, 1935 (No. 49) now in force, to import wheat and rye flour and other products prepared with these cereals, without the authorisation of a Government organisation known as the Commission of Agriculture. As a rule this body grants import licences for non-milled breadstuff cereals only to mills which previously regularly utilised raw materials of foreign origin, and in a proportion in accordance with the provisions in force on the admixture rate. Import licences for flour are granted only in exceptional cases and only for the manufacture of certain finished products such as alimentary pastes.

Purchases designed to Maintain Prices, as Supplementing Compulsory Admixture. — In 1931 it was made compulsory for the State to purchase, through intermediary organisations set up for the purposes and at prices fixed in advance for each farming year, all Swedish-grown cereals suitable for milling which should be placed on the market from June 1 to August 1. This guarantee of price remained in force up to the harvest of 1935. In 1936 the Diet substituted for it the procedure, still in force, of purchases for the maintenance of prices. The Government undertook to keep up market quotations by buying on the open market a given quantity, to be fixed each year, in the event of price levels falling below a certain limit. These purchases are made by the Swedish Cereals Company Limited, which was formed in 1935 under the aegis of the State and the activity of which is controlled by the Commission of Agriculture. In consequence of a decision of the Diet in 1937 these price maintenance purchases were only to be undertaken in the farming year 1937-38 if in the autumn of 1937 prices threatened to fall below 16 crowns per quintal of wheat and 15 crowns per quintal of rye, and if for the remainder of the stocks consumption period, they had showed a tendency to fall below the price which corresponded to the price indicated increased by the warehousing costs. These purchases for the year 1937-38 were limited to a quantity of 125,000 metric tons which, under certain conditions and with Government authorisation, might be raised to 150,000 tons. For the farming years 1936-37 and 1937-38 it proved unnecessary to make these purchases. In respect of 1938-39 the Diet has maintained the provisions above in force, with the amendment that, if the Government judges it advisable, maintenance purchases may be undertaken even if prices should exceed by 50 øre per quintal the figures already indicated.

According to the contract concluded between the State and the Swedish Cereals Company Limited, the Company is obliged to warehouse on account of the State breadstuff cereals up to a quantity of 100,000 tons as safety stock. This stock may be renewed by sales and purchases, but cannot be reduced without Government authorisation.

Tax on Wheat. — To prevent the guarantee of purchase from acting as a stimulus to the production of wheat, and also with the idea of covering the financial risk of intervention on the breadstuff cereals market, the Diet established in 1934 a tax on wheat. According to the provisions now in force (Royal Order of June 7, 1935) this tax is payable if the Government so decide, both on Swedish wheats and on foreign wheats, if transformed into flour or groats within the country, with the exception of wheat milled against future delivery of wheat in exchange. Millers exporting flour or groats may, under certain conditions, obtain reimbursement of the tax. In accordance with the decision of the Diet, this tax may not be higher than 3 øre per kilo. Actually it has varied between 2 and a half øre and 0.5 øre per kilo; now, August 31, 1938, it is levied at the latter figure (Royal Decree of February 1, 1938).

Import Charges on Certain Wheat Derivatives. — With a view to preventing the price of national products on which the tax just mentioned is payable from falling below that of imported wheat derivatives, an import tax has been placed (Royal Decree of August 24, 1935) on wheat flour and groats and on maccaronis and vermicellis. This tax stands now at 4 øre per kg. Receipts from this tax and from the tax on wheat are placed to the fund for meeting losses due to intervention on the market of breadstuff cereals by price maintenance purchases.

Regulation of the stock feeds market.

Measures have been taken to protect the national production of fodders and to prevent an excessive increase in animal production fostered by the importation of cheap fodders.

There is a *tax on cake and oilcake meal*, the fundamental provisions being found in the Royal Order of June 14, 1933. According to this Order, a maximum tax of 8 øre per kg. of cake or cake meal will be paid, if the Government so decide, on the import or manufacture for purposes of sale within the country. From July 27, 1937 to June 20, 1938 this tax remained at 2 øre per kg. of linseed cake and linseed meal, and at 4 øre per kg. for all the other products; it is now fixed by Royal Decree of June 17, 1938 at 3 and 5 øre respectively. When these products are exported or are used in the manufacture of products other than stock feeds, the tax may be reimbursed in virtue of the Royal Decrees of July 20, 1933, and of May 24, 1934.

In virtue of the Royal Order of May 18, 1934, amended by Order No. 420 of 1936, on the *import tax on oats and maize and on certain other stock feeds*, an import tax will be paid, if the Government so decide, on oats, maize, barley, vetches, fodder peas and fodder beans, cassava and tapioca roots, stock feeds made from products just enumerated, wheat derivatives, and derivatives of rye and of other cereals which may exclusively be used in stock feeding by mixing with other substances, etc. This tax which, in virtue of the decision of the Diet, originally could not exceed 6 øre per kg., was fixed in 1936 at a maximum of 8 øre; since June 20, 1938 (Royal Decree of June 17, 1938) it has amounted to 2 øre per kg. of maize and of fodder derived from maize, and to 3 øre per kg. for all the other products enumerated above. When the stock feeds to which the decree applies are re-exported, the tax is reimbursable under certain conditions.

Endeavours to limit consumption are also made by means of a special import licence for the stock feeds enumerated in the preceding paragraph. This licence, introduced in 1933, is at present governed by the Order of August 21, 1935.

Compulsory admixture and regulation of import of oats and oat derivatives intended for human nutrition.

In order to further the sale of Swedish oats intended for the manufacture of groats and oat flakes the Royal Order of May 29, 1933 requires the oatmeal mills of Sweden, with certain exceptions, to use in milling a certain proportion of Swedish oats, varying according to circumstances.

Since June 1, 1933 the proportion of admixture has varied between 10 and 50 per cent; it now represents, till September 30, 1938, 75 per cent. of the total, in accordance with the Royal Decree of June 17 1938.

To supplement the above Order the importation of finished products for the oatmeal industry has also been regulated. In virtue of the Royal Decree of June 14, 1933, prolonged to June 30, 1939, groats and oatmeal can only be imported with a special authorisation which at present is granted only in exceptional cases.

Sugar and sugar beet market.

After State subsidies had enabled sugar refiners to pay in 1930 and in 1931 a much higher price to beet growers, this method of assisting the sugar industry was given up in 1932 and was replaced by import monopolies and guaranteed prices for sugar beets and for sugar. With certain amendments and additions this system is still in force. According to the present measures (Royal Order of February 28, 1932, and Royal Order of February 25, 1938, also royal letter of February 25 1938), in force from March 1, 1938 to September 30, 1940, the Government has conferred the monopoly of sugar importation on the Swedish Sugar Refineries Company Limited. In the agreement concluded with the State, this Company has undertaken to guarantee to sugar beet growers a minimum price of 2.70 crowns per quintal of beets with a sugar content of at least 16 per cent., and moreover to make a delivery contract with them if they pay a minimum wage to the workers they employ in sugar beet growing. The Company was also guaranteeing in its contract a minimum price of 32 ore per kg. of "Krossmelis" (that is, "K.5" Netherlands standard). The prices of the other kinds of sugar of the Company are established on the basis of the price of the "Krossmelis" in such a way that a rise or fall in the price of this sugar is always followed by an alteration in the prices of the other qualities. The price of "Krossmelis" is established according to the price on the world market, with a minimum limit of 32 ore.

Measures relating to potato production.

By Royal Order of June 26, 1935 with effect up to September 30, 1940, with a view to promoting the sale of potatoes, a special licence is required for the manufacture of potato starch intended for other than household uses. At the time of the purchase of potatoes for starch manufacture, the holder of such a licence is required to pay a price fixed by the Government: at present and up to September 30, 1938 this price is 17.25 ore per percentage of starch content and hectolitre. The same Order provides for the supervision of production and the control of prices of potato starch.

In addition, since 1934 only the raw potato spirit can be utilised in the production of alcohol intended for human consumption.

Milk and milk products market.

The cost of the regulation of prices of milk and milk products is met by the import charges on milk and its derivatives, the excise duty on margarine and certain other fats and by part of the receipts of the tax on cake referred to above.

Tax on Milk. — In accordance with the Order of June 26, 1933 which, with amendments introduced in 1935 and in 1936, will remain in force till June 30, 1939, the Government was authorised by the Diet to levy a charge of 3 öre per kilogramme on all milk sold in the country; also on cream reckoned as milk and on milk used on the producers' premises for the manufacture of butter or cheese intended for sale. This levy however can be imposed only if a dairying organisation representing at least 60 per cent. of the milk delivered at all the dairies makes the request, with the consent of at least two thirds of its members who must in their turn represent at least three fourths of the total quantity of milk delivered to all member dairies. The Government can grant exemption from this levy. Since its introduction this charge has varied between 1 and 2 öre, and is now 1 ½ öre per kilogramme, as fixed by the Royal Decree of April 29, 1932. It is collected and administered, under the control of the Commission of Agriculture, by the National Association of Swedish Dairies, an organisation which now groups about 90 per cent. of all milk delivered to dairies.

Measures relating to Imports. — So as not to prejudice the objects of the levy on milk, the Government has been further empowered by the Diet to institute a monopoly of importation and to fix import charges on milk and milk products.

According to the measures of the Royal Decree of June 30, 1937, in force till June 30, 1939, these products can be imported only on a permit issued by the Commission of Agriculture and are subject to a tax on importation, equal to the export premium of the same product of national origin (1). The Commission of Agriculture can however grant exemptions from these import taxes.

Excise Duty on Margarine and on Other Fats. — In 1933 the Diet authorised the Government to levy on margarine a so-called excise charge with the object of preventing an increase of margarine consumption at the expense of butter consumption — as the price of butter had risen owing to the Government measures of price maintenance in favour of dairy production. The decree was replaced at the end of two years by the Royal Order of June 7, 1935, still in force with certain amendments. By this Order the same tax may be levied on other fats (artificial fat, edible oil, other substitutes of butter, lard and fat emulsion), and the maximum of 50 öre per kilogramme is raised to 60 öre. Since September 27, 1936, this tax has been levied only on margarine and, with certain restrictions, on artificial fat and on other substitutes of butter and of lard. Edible oil and fat emulsion having been exempted. In virtue of the Royal Decree of December 3, 1937, the rate of this tax is now 45 öre per kilogramme.

Since the institution of the excise charge on margarine, the customs duty on imported margarine is charged at the former rate of 15 öre per kilogramme plus the excise now in force, or a total of 60 öre per kilogramme.

Premiums. — The exports of butter and of cheese reckoned as butter, of condensed milk, dried milk and of cream, benefit by a premium equal to the difference between

(1) See below "Premiums".

the net price on import and the inland price of salt butter of average quality, bearing the mark representing a rune. For butter known as "country butter" sold in Northern Sweden by isolated producers who cannot deliver their milk to the dairies, a premium of 25 øre per kilogramme has been paid since 1935.

Subsidies intended for Price Equalisation. — The monthly total of the receipts from the various taxes mentioned here, after paying the export premiums, the premiums for farm butter and the costs of administration, is used to equalise the difference between the price of milk intended for direct consumption and the price of milk used in the manufacture of other products. The provisions in force relating to equalisation are laid down by the Royal Decree of June 30, 1937. Participation in this price equalisation is subject to very severe conditions. For example, it is required of a dairy that it should sell milk for direct consumption at reasonable prices, that it should observe the instructions in force for payment according to quality and that, according to the provisions of the Royal Decree of March 5, 1937, it should pay a higher price for milk from farms that cooperate in the control measures for tuberculosis in cows.

Slaughter stock market.

Since 1933 prices of slaughter stock have been partly maintained by limiting imports and subsidising and organising exports, and partly by relieving the congestion on the national market due to surplus production by freezing the meat and rendering down the bacon.

Limitation of Imports. — The provisions now in force regarding imports, laid down by the Royal Decree of June 30, 1937, have effect till June 30, 1939. In accordance with these provisions live cattle, sheep and pigs, beef, mutton, pigmeat and horseflesh—except dry salt bacon of American origin—as well as preserved forms of these meats, cannot be imported without the authorisation of the Commission of Agriculture. Further, until March 14, 1938, the importer, in order to obtain the permit to import mutton, had to pay a tax of 30 øre. Since March 15, 1938 a similar tax (Royal Decree of March 12, 1938) is also levied on the import of preserved beef and mutton; but the tax has been reduced to 15 øre. As to the application of the law, it may be remarked that the import of live cattle, and generally of beef and pigmeat, is in fact prohibited, but that the import of mutton and of the other products enumerated is permitted within certain limits. The Commission of Agriculture is empowered, in accordance with the general rules laid down by the Diet in 1937, to make it a condition of the import of live slaughter stock and of meat, that any profits realised up to June 30, 1939 by the importation shall be paid by the importer to the fund for the regulation of the prices of agricultural products.

Regulation of the Export of Bacon to the United Kingdom. — The Government measures which now regulate the export of bacon intended for the United Kingdom date from June 30, 1936. Their object is to establish an equalisation between bacon prices in the United Kingdom and the corresponding prices of pigmeat in Sweden, so as to ensure the same price to Swedish bacon exporters, on whichever market they sell. Every week the Commission of Agriculture fixes, on the proposal of the Association of Swedish Export Abattoirs, two prices for the bacon, an average export price, and an average wholesale price for Sweden. The average export price is based on the prices of Swedish bacon on the London and Manchester markets, with deduction for costs of transport and sale; the average wholesale price in Sweden is calculated on

the basis of national prices plus the costs of curing. If the average wholesale price in Sweden exceeds the average export price, the difference is paid to the exporters; if on the contrary it is the average export price which is the higher, the exporter may keep for himself 8 øre per kg. of the difference, but must pay the remainder into the fund for regulation of prices of agricultural products.

Subsidising and Organisation of the Export of Live Cattle to Germany, etc. — In virtue of an agreement concluded in 1930, Sweden is entitled to send into Germany a certain quantity of slaughter cattle at an import duty lower than that generally charged. For this export, which is authorised by the Commission of Agriculture, the Commission, in virtue of the Royal Order of September 16, 1933, pays premiums which may not exceed 25 øre per kg. of live weight. The Commission also grants transport subsidies of a maximum of 20 crowns per animal.

For the slaughter stock and meat exports other than those just mentioned, the Commission of Agriculture has been empowered to pay, out of the funds for the regulation of the prices of agricultural products, premiums for the export of cattle and of meat. These may not exceed 25 øre per kg. of live weight or 50 øre per kg. of dead weight, to which must be added maximum transport subsidies of 20 crowns per animal. For the export of live pigs or pig meat, the total premium may not be more than 50 øre per kg. of dead weight. Export premiums are calculated in such a way as to cover losses on the export markets only if due to the price situation and transport costs. They are not to form a positive advantage for exporters.

— *Government Subsidies for Freezing of Meat, etc.* — In order to relieve the situation on the national meat market, sums from the fund for the regulation of the prices of agricultural products may be devoted in part to the freezing of meat at the maximum rate of 50 øre per kg., in part to meet the costs of the rendering down of the inferior parts of pigmeat. For this latter operation, which is carried out only to a small extent, a maximum of 50 øre is also paid. The two types of subsidy are calculated to cover losses only.

Funds intended for the Regulation of the Slaughter Stock Market. — The money to finance measures relating to slaughter animals comes from the taxes on the importation of these animals and of meat, from receipts of prices equalisation relating to the export of bacon to the United Kingdom, and from the tax on slaughter stock. The receipts of the import taxes on oats, maize and other stock feeds are used for the same object in so far as they are not absorbed by the maintenance of prices of eggs and of stock feeds.

According to the provisions in force for taxes on slaughter stock (Royal Orders of June 7, 1935 and June 11, 1937), the supervised slaughterhouses, if the Government so order, must pay slaughter taxes on meat fit for human consumption. The total amounts of these taxes are: 3 crowns for cattle of dead weight of at least 150 kg., and the same for horses; 2 crowns for pigs; one crown for all other kinds of animals. In 1937 it was not found necessary to levy these taxes.

Egg market.

For keeping up egg prices measures have been taken to regulate and limit importation, and secondly to get rid of surpluses by means of export premiums.

With the object of regulating and restricting egg imports, the legislation now in force makes the import of eggs, yolks and liquid white of eggs, subject to special authorisation of the Commission of Agriculture and to a tax on eggs of 50 øre per kg.,

maximum. As regards export, it has been decided (Royal Decrees of May 4, 1934, and June 28, 1935) that the authorisation of this body or of its delegate is required. It has also been laid down that export premiums of amounts varying according to the different external markets may not exceed 50 öre per kg. (60 öre exceptionally). On the other hand the exporter is bound, as in the case of export of bacon to the United Kingdom, to pay the price difference to the State Fund—with deduction only of the costs of exporting and of a reasonable trade profit—for the weeks in which the net average export price exceeds the average wholesale price in Sweden. The Commission of Agriculture has entrusted the regulation of egg imports and exports to the Association of organisation concerned in the egg trade. The costs of the regulation of egg export are in part covered by the taxes on the import of eggs and in part by the receipts from the tax on fodder cake.

II. — MEASURES AFFECTING AGRICULTURAL ECONOMY IN GENERAL

Among the measures of this type two especially call for detailed analysis: the Law of June 26, 1936 on the working day in agriculture, the application of which was considerably extended by the Law of June 28, 1937; and the Law of June 17, 1937 on compulsory paid holidays.

The Law on the Working Day in Agriculture, in its present form, is in force since November 1, 1937. It applies to all farms as well as to all industries connected with farming which are not independent of a farm, where the number of workers employed is at least three (formerly five), and to all gardening enterprises which employ at least one (previously at least five) workers. Certain types of work are exempt from these provisions, including milking and the collection of truffles, as being paid by the job, drainage work and forestry work done as piece work by day labourers, domestic work, work for the Government. Certain persons are also exempt from these provisions: members of the family of the employer, and the managing staff, accounting and office staff.

For agriculture properly so called, the law fixes an ordinary working day of 10 hours with deduction for rest periods, and lays down that the working week may total at most 41, 46 or 52 hours according to the season. Thus the annual average of the length of a working day is a little more than eight hours. For workers engaged in the care of livestock, the maximum period of work is 9 hours per day and 108 hours for a period of two consecutive weeks. If required by special circumstances, the Labour Council may admit exceptions to the above provisions in respect of the ordinary length of the work period. The law contains special provisions for additional hours; the maximum number of these allowed varies according to the reasons for requiring them.

The Law on Compulsory Paid Holidays, which came into force on July 1, 1938, applies to all workers, including farm workers. The only persons excluded are members of the family of the employer and workers remunerated only by a share in profits. The legal provisions represent a minimum; if, for example, a work contract contains on the one hand conditions better than, and on the other hand worse than the legal conditions, it will be always the more advantageous conditions, whether legal or contractual, which will apply.

Workers who have been employed for 180 days are entitled to holiday, if the employment constitutes their principal occupation. The holiday is one day per month, with a maximum therefore of 12 days a year. If the worker has been employed only

a part of the year the holiday is reduced in proportion. Sundays do not enter into the calculation, and feast-days only if the holiday or leave amounts to at least six consecutive days. For the farm staff in charge of the animals, the employer may grant a leave compensation instead of the holiday. The employer decides on the period in which the holiday may be taken, and must inform those concerned at least 15 days in advance. Farm workers, and gardeners as well as farm servants cannot claim, as those in other occupations, to take their leave at one and the same time. During leave, wages are paid as usual. For workers paid by the hour or the day, as well as for job workers, the daily wage during the holiday will be equal to the average earnings in the course of the past calendar year, without however taking account of additional hours of work. Workers who are entitled to board and who during their leave do not benefit by this, or only partially benefit, are entitled to a fair compensation. As the intention of the law is that the holiday shall be used for rest and recreation, it lays down that if the worker during *part* of his leave does paid work at his own occupation, he will lose the right to his wages for the whole of his holiday.

Government Credits for the Encouragement of the Joint Use of Agricultural Machines in Small Cultivation. — In accordance with a decision of Parliament in 1938, credits have been set aside for the joint purchase of farm machines for the encouragement of the use of machines in small cultivation. The detailed provisions regarding obtaining loans from this fund are contained in Royal Order of June 17, 1938, No. 401.

AUSTRALIA

The year 1937 was one of prosperity for Australia. Markets for most exports held well. In spite of heavy declines in security markets throughout the world, Australian exchanges resisted. Towards the end of the year, however, and during the first months of 1938 there has been a tendency towards caution, and the strong upward movement of the past two years has certainly been checked, although at a fairly high level.

The prosperity of Australia depends primarily on conditions in overseas markets and on world prices of a few staple export products, of which by far the most important is wool, with exports of wheat and wheat flour, butter, sugar, chilled beef and lamb, and hides and skins together totalling about the same value as wool. The following table provides a clear picture of the course of Australian export price conditions in recent years:

Commonwealth Statistician's Index of Export Prices.

(Base 1928 = 100, in terms of Australian Currency).

Month	1933	1934	1935	1936	1937	1938
March	51.0	73.9	56.4	78.5	98.8	72.9
June	60.7	64.8	65.2	74.7	94.6	—
September	70.8	58.1	71.4	79.0	89.8	—
December	71.0	55.0	73.6	92.0	79.6	—
Average	61.6	65.3	65.6	80.5	92.4	—

In spite of the fact that prices of leading exports have declined, as demonstrated in the above table, the total value of exports improved during 1937 to £165,833,000 (1). Imports amounted to £129,721,000, and the favourable balance of trade increased by about £6 millions over 1936.

Exports of Agricultural Products from Australia (1).

(Australian currency values)

Product	Last six months 1936	Last six months 1937
Butter	3,471,200	4,403,900
Cheese	178,000	399,800
Eggs	969,600	683,200
Milk and cream	359,700	572,600
Meats:		
Chilled, frozen and preserved	4,558,200	5,768,300
Sausage casings and other	827,700	882,000
Fruits:		
Dried	608,800	698,500
Fresh	204,200	260,900
Preserved in liquid	311,800	494,200
Wheat	5,161,300	6,208,900
Wheat flour	2,437,300	2,948,300
Sugar	2,507,200	3,591,700
Hides and skins	4,069,300	4,416,200
Wool:		
Greasy	27,023,000	22,151,400
Scoured, tops, etc.	3,441,800	3,488,100

(1) Data from *Quarterly Summary of Australian Statistics*, Bulletin No. 150, December 1937.

Wool is the leading agricultural product and export of Australia. Following the Easter wool auctions, there was a better tone in the market than in previous months. Prices were firm at a higher level than before Easter although far under last year's prices; the average figure in May for greasy wool was 10.91 pence per lb. as against 11.81 in March 1936, 18.3 in March 1937, and 12.67 for the period 1 July 1937 to 31 May 1938. Realisations from the current clip totalled £35,134,000 against £50,260,00 last year. Exports were lower, at 2,048,000 bales to 31 March compared with 2,349,000 bales. The United States, United Kingdom, Japan and Belgium bought less, while France and Germany increased their purchases. It is estimated that the wool clip in the 1938-39 season will be some 10 per cent. less than the current season's clip of about 3,150,000 bales.

The money market, Government finance and the railway position were sound.

(1) *The Times*, 31 May 1938. These figures refer to calendar years; more detailed figures are given on pages 391 and 392, for fiscal years running from 1 July to 31 June.

I. — MEASURES AFFECTING MARKETS AND PRICES.

Customs Tariff.

RECENT AGREEMENTS.

Australia has not concluded recently any new commercial agreements of outstanding importance. Agreements with the Belgo-Luxemburg Economic Union, Czechoslovakia, France, the Union of South Africa and Japan came into force on 1 January 1937, and have already been described (1). Various minor modifications have been made in the customs tariff but not concerning agricultural products nor of sufficient importance to warrant detailed mention here (2). Australia received tariff concessions from Canada under the agreement effected by an exchange of notes of 1 October 1937, which lowered Canadian duties on fresh lamb and mutton (3).

The Australian Government announced that, as a preliminary to negotiations for a most favoured nation treatment trade agreement with Norway, that country has, from 4 February 1938, been accorded Australian intermediate tariff rates and primage duty concessions.

A new agreement with Japan was announced on 3 July 1938, and details are given in the section on Australian-Japanese trade relations.

AUSTRALIAN TARIFF SYSTEM.

The tariff rates at present in force are: (a) The British preferential schedules which apply to produce of the United Kingdom but which may be extended to any British non-self-governing colony. These rates have been extended by separate reciprocal agreements to certain products of Canada and New Zealand (4); (b) the intermediate tariff, which was re-introduced during the Parliamentary session of 1936 and took effect from 1 January 1937 (5). The intention, according to the Minister for Trade and Customs, was "to provide a convenient avenue for expressing the level of duties which the Government propose should form the basis for trade treaties. The rates proposed under the protective items of the Intermediate Tariff express, in every case, a protective level for Australian industry as well as preserving the margins required under the Ottawa Agreement"; (c) the general or maximum rates apply when the preferential or intermediate rates do not. It should be noted that countries which have signed most favoured nation agreements with Australia are not entitled to intermediate tariff on all imports, but only on imports already specified in other commercial agreements on which intermediate tariff treatment is accorded and which is then automatically extended through the operation of the most favoured nation clause.

Intermediate tariff treatment has now been extended for specified products to nearly all countries. An important exception is the United States, while Japan is entitled to intermediate rates on eleven items only.

PRIMAGE DUTY.

Primage duty at the rate of 2 per cent. was first imposed on 10 July 1930 on practically all imports into Australia. The rate was increased to 4 per cent. on 6 November 1930; a few exemptions were allowed during 1931. while the rate on some

(1) See "Government Measures Affecting Agricultural Prices", No. 9, 1937, p. 12.

(2) See the *Board of Trade Journal*, 3 February 1938, p. 172 for a list of tariff modifications effective from 25 June, 8 September and 9 December, 1937.

(3) See the *International Chronicle of Agriculture* for February 1938, p. 87.

(4) See the *Commonwealth Official Year Book*, 1937, p. 487 *et seq.*

(5) Customs Proclamations Nos. 338, 342 and 343, 1936.

products was increased to 10 per cent. Since that year the list of goods exempt from primage duty has been greatly extended, both as regards country of origin or type of product.

Customs proclamations which came into force on January 1, 1937 provide, in respect of specified tariff items, exemptions or reduced rates of 4 and 5 per cent. primage duty on imports which are the produce or manufacture of "proclaimed countries". All countries whose goods are admissible to Australia under the intermediate tariff schedules rank as proclaimed countries. This excludes the United States and extends only to eleven items of Japanese exports.

TRADE DIVERSION POLICY.

The Minister directing negotiations for trade treaties announced on 22 May 1936 in the House of Representatives the decision of the Government to divert a portion of Australia's import trade, with the object of increasing exports of her primary products, of expanding her secondary industries, and of increasing rural and industrial employment in general (1).

(1) The following table shows the development of Australian trade in recent years with certain important countries; data based on the *Report on Economic and Commercial Conditions in Australia*, dated November 1937, of the United Kingdom Department of Overseas Trade:

Australian Exports and Imports According to Country of Destination or Origin.
(Including gold bullion and specie).

COUNTRY	1932-33		1934-35		1936-37	
	Value in 1,000's	Percentage of total	Value in 1,000's	Percentage of total	Value in 1,000's	Percentage of total
	£ stg.	%	£ stg.	%	£ stg.	%
EXPORTS TO:						
United Kingdom.	67,240	55.60	50,770	56.27	74,271	46.26
Japan	11,468	9.48	9,657	10.70	9,673	6.03
Belgium	4,062	3.36	4,855	5.38	9,502	5.02
France	6,054	5.00	3,778	4.19	7,744	4.82
New Zealand	2,770	2.29	2,880	3.19	5,651	3.52
United States	3,539	2.93	2,202	2.44	17,645	10.99
Germany	5,090	4.21	1,388	1.54	4,110	2.56
Canada	1,209	1.00	1,153	1.28	2,184	1.36
Netherlands East Indies	1,196	0.99	947	1.05	1,068	0.67
<i>All countries.</i>	<i>120,943</i>	<i>100.0</i>	<i>90,225</i>	<i>100.0</i>	<i>160,532</i>	<i>100.0</i>
IMPORTS FROM:						
United Kingdom.	23,543	41.68	30,789	41.54	38,762	41.89
Japan	3,537	6.26	4,625	6.24	3,984	4.30
Belgium	282	0.50	478	0.64	(1) 568	0.61
France	1,195	2.12	862	1.16	864	0.93
New Zealand	1,103	1.95	1,480	2.00	1,533	1.66
United States	8,084	14.31	11,042	14.90	13,007	14.06
Germany	1,832	3.24	2,145	2.89	3,576	3.86
Canada	2,315	4.10	4,092	5.52	6,041	6.53
Netherlands East Indies	2,931	5.19	4,390	5.92	6,130	6.62
<i>All countries.</i>	<i>56,489</i>	<i>100.0</i>	<i>74,119</i>	<i>100.0</i>	<i>92,534</i>	<i>100.0</i>

(1) 1935-36.

The Minister's statement indicated that certain imports would be restricted with a view to their manufacture in Australia. In the case of certain other imports, it was intended to divert them from their present sources of supply to other countries which were further important customers of Australia and to which it was thus sought to increase Australian exports. The procedure of diversion would be (a) the adoption of a special licensing system over a limited range of imports and (b) the imposition of higher import duties where this course appeared more expedient. In the case of some products, both methods may have been adopted (1).

All goods of British origin were to be exempt from the licensing system except motor chassis, and imports of these of all other origin would be restricted. Upon application, licences for all other imports would be granted freely to countries with which Australia had a favourable balance of trade and to all other countries to which the Government might judge it expedient to grant them.

The special licensing system was introduced on 23 May 1936 (2) and prohibited the import of 84 classified groups of goods except under licence (3).

UNITED STATES - AUSTRALIAN TRADE RELATIONS.

The trade diversion policy described above adversely affected a wide range of products of the United States, which for a number of years had enjoyed a very favourable trade balance with Australia (4). In retaliation the United States withdrew as from August 1, 1936 the most favoured nation treatment hitherto accorded to Australian

(1) Cf. Prof. N. F. HALL, "Trade Diversion". An Australian Interlude", *Economica*, February 1938, p. 2.

(2) In the form of an amendment to the Customs (Prohibited Imports) Regulations.

(3) For details, see *Official Year Book of the Commonwealth of Australia*, 1937, p. 477.

(4) The countries with which Australia had the greatest favourable or unfavourable balance of trade can be seen from the following table (Data from *Commonwealth Official Year Book*, 1937, p. 507); see also the table in the footnote on page 391:

Balance of Australian Trade with Principal Countries
(Excluding Gold Bullion and Specie).

COUNTRY	Thousands of Pounds Sterling					
	Imports		Exports		Excess of Imports (—) or Exports (+)	
	1934-35	1935-36	1934-35	1935-36	1934-35	1935-36
United Kingdom	30,787	33,836	42,803	48,752	+ 12,016	+ 14,736
Canada	4,092	5,376	1,153	1,056	— 2,939	— 4,320
India	2,541	2,732	490	745	— 2,051	— 1,987
New Zealand	1,291	1,549	2,887	3,506	+ 1,596	+ 1,957
Belgium	478	568	4,855	5,797	+ 4,377	+ 5,229
France	862	790	3,778	4,895	+ 2,916	+ 4,105
Germany	2,145	2,963	1,388	1,891	— 757	— 1,072
Japan	4,625	4,970	9,657	14,101	+ 5,032	+ 9,131
Netherlands East Indies	4,390	4,928	944	1,017	— 3,446	— 3,911
United States	11,042	13,902	2,199	4,480	— 8,843	— 9,422

goods, including certain trade benefits extended to Australia equally with a number of countries with which the United States had concluded trade agreements. Furthermore, Australia, extended as from January 1, 1937 to "proclaimed countries" intermediate customs tariff rates and certain primage duty concessions; the list of countries includes the United Kingdom, the Dominions, British Colonies and the principal foreign countries, but does not include the United States (1).

JAPANESE-AUSTRALIAN TRADE RELATIONS.

Under the trade diversion policy, customs duties were increased as from May 11, 1936 on imports of cotton, artificial silk and silk piece goods, mainly in order to curb the imports of low-priced cotton and rayon fabrics from Japan.

Japan immediately responded by increasing certain import duties and by invoking a licensing system on imports from Australia (mainly wool and wheat). There followed a period of keen struggle, which was eventually terminated by the conclusion of a temporary agreement between the two countries, which was signed in December 1936. Trading relations were resumed on a more or less normal basis from 1 January 1937.

Under the temporary agreement of December 1936, which was to remain in force until June 1938, Japan undertook on the one hand to permit entry of 800,000 bales of Australian wool within this period, and on the other to set up an export control organisation to regulate shipments of cotton and artificial silk piece goods to Australia within limits agreed upon between the two Governments. Both countries agreed to remove the prohibitions and surcharges which had been imposed on each other's goods, and Australia made certain concessions in regard to actual duties on Japanese piece goods.

On December 7, 1937 the Government announced its intention of substituting the licensing system by a system of adequate duties, where such action was considered necessary for the protection of Australian industry. Until the substitution is made by Parliament, after reference, in appropriate cases, to the Tariff Board, certain provisional modifications have been introduced into the working of the licensing system.

Thus, in the case of goods which are not competitive with Australian industry, licenses will be granted for importation irrespective of the country of origin. In the case of goods competitive with Australian industry, the licensing restrictions at present in force will operate until duties, adequate for the protection of the industries concerned, have been determined and applied.

These principles were followed up to May 1938. On May 5, 1938 it was announced that permits would be issued freely for the importation of all remaining goods previously subject to licensing regulations, while on the same date new tariff schedules were announced. These do not refer to agricultural products, and, in general, increase the general tariff rates on certain items, leaving the British preferential rates unchanged (2).

(1) The Minister for Customs stated in Parliament in June 1937 that the Government's trade diversion policy had diverted from the United States to other countries trade valued at £2,200,000 a year, *exclusive of motor vehicles*. It was claimed in consequence that Australian manufacturers had gained trade to a value of £764,000, the United Kingdom by £802,000, Canada by £169,000, Germany by £225,000, and various other countries by smaller amounts. In addition trade in motor vehicles to the value of £500,000 a year was stated to have been diverted to the United Kingdom.

(2) For details of tariff changes, see the *Commercial Intelligence Journal*, 14 May 1938, p. 783 *et seq.*

Subsequently a new trade agreement with Japan, expiring of 30 June 1939, and limited to Australian wool and Japanese textile piece-goods, has been concluded, succeeding the agreement which expired 30 June 1938.

Japan will issue permits allowing Australia to provide two-thirds of Japan's total wool imports up to 500,000 bales and three-quarters of the imports in excess of this figure. Australia also has the right to provide 100,000 bales more, representing the difference between the actual Japanese purchases during the currency of the last agreement, which amounted to 500,000 bales, and 600,000 bales. Under the old agreement Japan agreed to permit the importation of 800,000 bales in 18 months.

The new agreement is similar to the old in regard to textiles. Australia reserves the right to review the textile quotas if it appears that Japanese imports of Australian wool are less than 266,667 bales, plus the 100,000 bales specified as an additional purchase.

It is stated that the agreement virtually ensures the sale of between 350,000 and 400,000 bales to Japan next season.

Bounty on Raw Cotton.

The Minister for Trade and Customs announced that the 20 per cent. emergency reduction of the bounty on raw cotton produced in Australia would be restored to the basic rate of 7d. per lb., as provided in the Raw Cotton Bounty Act of 1934. The statutory rate will be paid in full on raw cotton produced from the 1938 and 1939 crops, whereas the bounty rates on previous crops were reduced by 20 per cent. in accordance with the Financial Emergency Act of 1931.

The full basic rate of 4½d. per lb. is paid when the spot price of American cotton on the Liverpool market is 6d. per lb. The bounty increases or decreases with this Liverpool price.

Marketing Situation after the Vote on the "Referendum". (1)

After Section 92 of the Australian Constitution was invalidated by a decision of the Judicial Committee of the Privy Council of the United Kingdom, handed down on July 17, 1936, and after the "Referendum" seeking power for the Federal Government to continue its power of control over the marketing of primary products failed to receive the required majority vote, the Federal Government decided that it could no longer intervene in the regulation of marketing, and that the solution of the problem of finding a means for assisting producers in this way should become a matter for the individual States. The various industries, therefore, found themselves again in the position that existed when the States controlled overseas marketing. In at least two instances, however, *viz.* dried fruits and dairy produce, the producers themselves immediately decided to maintain on a voluntary basis the organisations already established for the purposes of government control. Apart from this action no definite steps have yet been taken to re-institute control, but the Australian Agricultural Council (2) — a body comprising heads of State agricultural Departments, which advises on

(1) See also *Government Measures Affecting Agricultural Prices*, No. 6, 1936, p. 56, in which the case of *James v. Commonwealth of Australia* was reported.

(2) The principal functions of this Council, which was established at the end of 1934, are: (a) the promotion the welfare and development of agricultural industries generally; (b) improvement of the quality of agricultural products and maintenance of high-grade standards; (c) to ensure as far as possible a balance between production and available markets; (d) to promote organised marketing.

general agricultural matters — has reaffirmed its belief in the principle of organised marketing while the Federal Assistant Minister of Commerce stated that the whole of the marketing problem would be reviewed by the Council when the legal experts of the various States had submitted their reports on the difficulties to be faced (1).

DAIRY PRODUCTS.

The Australian Dairy Produce Board and the Commonwealth Dairy Produce Equalisation Committee Ltd. control the marketing of butter abroad, fix a home price to compensate for low export parity and allocate quotas for home consumption and for export. A meeting of the Australian Dairy Produce Board towards the end of 1936 discussed the possibilities of a more even distribution of shipments throughout the year, and also the possibility of sending larger and more regular shipments to the out-ports (*i. e.* ports in the United Kingdom other than London). One of the outstanding decision of the Dairy Produce Equalisation Committee Ltd. was the raising of the Australian wholesale butter price, in June, 1937, from 140s. to 149s. 4d. per cwt., this being the first alteration in the local price since the equalisation scheme was instituted in May, 1934.

The operations of the Dairy Produce Equalisation committee were, of course, deprived of legislative authority by the Privy Council decision in the "James Case" and the subsequent referendum. However, a meeting of delegates to the Equalisation Committee, held in March, 1937, decided that the butter "equalisation" scheme should be continued as a voluntary arrangement by the principal producing States, and this decision was later confirmed by State conferences of butter and cheese manufacturers and distributing agents. It was reported in October, 1937, that the Commonwealth Equalisation Company (as it is now called) was operating satisfactorily on a voluntary basis, and that several butter factories which had originally been inclined to remain outside the scheme had since joined up, with the result that practically all butter manufacturers were now associated in the "equalisation" of local and overseas prices.

With a view to assisting the sales of Australian butter in the United Kingdom in competition with other suppliers, regulations were introduced on January 1, 1937, prescribing a new uniform butter box, and further regulations were gazetted in June, 1937, and came into force in November, 1937, giving effect to the Federal Government's decision that all butter exported should bear a national brand — of which there are six, one for each grade of butter.

WHEAT.

The wheat industry suffered perhaps more than any other Australian industry during the period of depression and the investigations of the recent Royal Commission disclosed the existence of a difficult financial situation in the case of a great many growers.

During the earlier boom period when prices were high much land formerly in sheep was diverted to wheat production, which at that time might have been just profitable,

(1) For a comprehensive survey of the juridical aspects of the economic problems involved in Federal and State marketing, see BAILEY and GIRLIN "Marketing and the Constitution" in the *Economic Record*, Vol. XII, No. 23, December 1936.

but which became hopeless for the purpose during the succeeding depression when prices fell. Without Government assistance the position of farmers on these lands would have been desperate. Even on more suitable lands production at the new price was unprofitable in large numbers of cases, and it was estimated at the time the Royal Commission sat, that as a result, the accumulated liabilities of wheat farmers had grown to no less than £140,000,000. In a memorandum published towards the close of 1936 the Commonwealth Publicity Officer summarised the direct assistance given by the Federal Government to wheat growers as follows:

1931-32	Bounty of 4 ½d. per bushel	£3,414,000
1932-33	Direct grant to growers	2,000,000
1933-34	Direct grant to growers	3,000,000
1934-35	Bounty of 3d. per bushel	1,524,000
	Grant of 3s. per acre sown	1,945,000
	Grant for necessitous cases	573,250
1935-36	Grants to States	1,878,906
		<u>£14,335,156</u>

With the improvement in prices recorded above it became unnecessary for any direct assistance to be allocated for the 1936-37 crop; and at the same time the various State schemes for the relief of farmers, financed from Commonwealth loans, resulted in the adjustment of a proportion of the heavy debts incurred before 1936. The Commonwealth Government also devoted attention to the placing of wheat-growing on a more favourable permanent basis, so that it could withstand the effects of any future serious decline in prices. Conferences with the States had already resulted in the drawing up of a series of measures (based largely on the recommendation of the Royal Commission) for establishing a home consumption price of 4s. 9d. per bushel, the licensing of flour millers and wheat receivers, and the temporary re-imposition of the flour tax, if the operation of these new proposals were delayed. But the decision of the Privy Council on the interpretation of Section 92 of the Constitution and the subsequent negative Referendum vote on marketing, threw up the whole problem of the proposed legislation into sharp relief. No definite steps have since been taken to revive the question, no doubt because the present favourable price situation has relieved conditions. There is every indication that, taking the country as a whole, this favourable situation will continue during the current year.

SUGAR.

Production of cane sugar is confined to Queensland and the extreme northern districts of New South Wales. Under an agreement between the Commonwealth Government, the Queensland Government and the growers, a retail home consumption price is fixed which compensates producers for losses incurred on sugar exported at world prices, which are usually much below local costs of production. An attempt was made a few years ago to fix a quota of production based on the "peak year" figure of 1929, which was approximately 600,000 tons, but in every year but one since 1931 the annual output has been in excess of that figure; the total for the 1936-37 season was at the record high figure of 876,700 metric tons, and that for 1937-38 will reach nearly 900,000 tons, which is much above the peak quota.

At the International Sugar Conference held in London in the spring of 1937 Australia was able to secure (under the new International Agreement which is operative

as from September 1937) an irreducible export quota of 400,000 tons of raw sugar per annum. This figure is regarded with satisfaction by local producers since it is only 25,000 tons less than the amount exported by Australia in a record year. The Commonwealth Government Sugar Adviser has stated publicly that Australia has now an assured market for her export quotas during the next five years.

DRIED FRUITS.

As with various other primary products, the effect of the Privy Council decision and subsequent Referendum vote was to upset the legislative control of the marketing side of the industry. In April 1937, however, a conference of representatives of all sections of the industry adopted a voluntary agreement by which the signatories undertook to observe the quotas fixed by the State Boards for Australian consumption and to share any loss accruing from the export of the remainder. All but one or two dealers throughout the Commonwealth subscribed to this agreement, thus ensuring the continuation of the system which has been in force since 1925.

CITRUS FRUITS.

Following on the decision of the Commonwealth Government not to provide any further assistance after 1936 to the citrus fruit industry until growers took steps to organise themselves, a Citrus Advisory Council was formed, and held its first meeting in April 1937. The Council's functions mainly concern orderly marketing abroad, grading, handling, packing, shipping, development of new markets, reduction of freight costs, production of the correct varieties for oversea demand, and other steps for the general improvement of producing and marketing conditions.

The Government consequently decided to continue the bounty of 2s. per case on citrus fruits shipped during the 1937 season, the expenditure involved being approximately £8,000. The bounty will not be granted to shipments to New Zealand, nor to exports of "Plain" oranges nor to navel oranges exported to the United Kingdom and Europe after 31 July 1938 or to other destinations after 31 August 1938. In previous years this assistance was given only in regard to oranges, but this year it has been extended to cover small experimental shipments of grape fruit and lemons.

TOBACCO.

The Commonwealth Government have recently set up a Federal Tobacco Advisory Committee, consisting of two representatives of growers in each State, with the object of protecting the interests of tobacco growers and advising the Government on all matters affecting the industry. At its first meeting in June 1937, the Committee urged that the present Commonwealth grant of £20,000, spread over five years and used mainly for research purposes, should be continued for a further similar period on its expiry in 1938. This recommendation was later endorsed by the Australian Agricultural Council. The Committee also approved the establishment of central packing sheds in each State to improve the quality and grading of Australian leaf, and recommended in addition greater Customs protection against imported leaf (1).

(1) In its Tariff Schedule of June 1937, the Federal Government granted reduced duties on imported manufactured tobacco and cigarettes of United Kingdom origin, provided that these contained certain proportions (13 per cent. for cut or manufactured tobacco and 2 ½ per cent. for cigarettes) of Australian-grown leaf.

II. — MEASURES AFFECTING AGRICULTURAL ECONOMY IN GENERAL.

Direct Government Assistance to Primary Producers.

According to a statement in the House of Representatives on 27 May 1938 (1), Government assistance to primary industries in the past five years totalled £21,293,000 of which wheat had required £11,100,000 (2), artificial manure £1,606,000, fruit £607,000, cotton £494,000, wine export £1,176,100, cattle tick control £320,000, forestry £563,500, with gold and sulphur making up the balance. Included in this total is £4,317,000 for farmers' debt adjustment under the Loan (Farmers' Debt Adjustment) Act 1935, which made provision for grants totalling 12 millions to be made available by States for this purpose (3). The estimate for the above requirements for the year 1937-38 is £3,433,000 (4).

(1) *The Times*, 28 May 1938.

(2) A figure of £ 14,335,000 is given for wheat in the *Report on Economic and Commercial Conditions in Australia*, dated November 1937.

(3) To the above figures of direct assistance should be added various forms of indirect government aid and large consumers' contributions resulting from the fixing of internal prices to enable producers to compensate themselves for export values low in relation to costs of production.

(4) Detailed information of this plan is given in R. B. LEMMON, "Farmers' Relief and Debt Adjustment", *Economic Record*, Vol. XIII, No. 24, June 1937.

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MONTHLY BULLETIN

OF

AGRICULTURAL ECONOMICS AND SOCIOLOGY

1938

No. 9

FOOD CONSUMPTION HABITS IN THE FAR EAST

SUMMARY: General characteristics of the diet. — Cereals. — Pulses. — Roots, vegetables, fruit, etc. — Meat. — Fish. — Eggs. — Milk. — Dairy products, fats and oils. — Sugar.

In the Far Eastern part of the Asiatic continent, where more than half the human race lives, we meet with food consumption habits which, for various reasons — differences in climate and race, in economic, social and religious conditions, etc. — are in many respects fundamentally different from those prevailing in the countries of Western civilisation. In a series of articles to follow, each of which will deal with one of the more important Far Eastern countries, it is intended to present in some detail the influence of these factors on food consumption habits in those countries, the effect of these habits on health conditions, recent changes in these habits as a consequence of contact with the western world, the measures for their improvement proposed by various experts and the influence that such improvement is likely to have on the agricultural production of the countries concerned, on the mental and bodily well-being of their inhabitants, on world trade and on the world economy as a whole. The present article will serve merely as an introduction to these studies, indicating briefly, the most important characteristics of Far Eastern dietary habits, and comparing them with those of the West.

General characteristics of the diet.

As an indication of prevailing food consumption habits in the Far Eastern countries, certain data have been assembled in the tables given below. These have been drawn partly from a number of family budget investigations undertaken in those countries in recent years, partly — as regards Japan, Java and the Madras Presidency — from estimates of various foodstuffs consumed per consumption unit by the population as a whole, and, calculated on the basis of production, export and import statistics. In the text — since for want of space it has not been possible to include them in the tables — there will be given, for the sake of comparison, corresponding data for some Western countries, such as the United

TABLE I. — *Intake per Day per Consumption Unit of Various Food-constituents in Far Eastern Countries.*

	Protein (grammes)			Fat (grammes)			Carbo- hy- drates (gram- mes)	Calories	
	Total	Animal	Vege- table	Total	Animal	Vegetable		Total	Percent. of animal origin
CHINA									
North China, middle class (1)	86.4	7.7	78.7	34.1	—	—	537.0	2794	—
South China, day labour- ers (1)	67.1	0.0	67.1	27.2	—	—	604.9	3008	—
Peking, teachers (2)	75.9	1.3	74.6	29.6	7.3	22.3	505.3	2595	1.13
Peking, labourers (3)	84.3	6.4	77.9	47.2	16.9	30.3	493.5	2742	6.93
Shanghai, labourers (4)	88.1	5.5	82.6	48.5	10.5	38.0	531.0	2913	—
JAPAN									
Whole population, 1925 (5)	104.4	18.8	85.6	20.9	4.1	16.8	634.4	3224	3.7
Salaried classes (6)	68	21	47	22	—	—	493	2506	—
Farmers (6)	72	20	52	20	—	—	521	2614	—
Labourers (6)	98	13	85	18	—	—	658	3265	—
KOREA									
Students and servants (7)	89	16	73	15	—	—	454	2366	—
JAVA									
Whole native popula- tion (8)	53.2	—	—	32.8	—	—	443.4	2340	—
Kotawinangoen, farmers and labourers (9)	60.0	1.1	58.9	49.5	—	—	427.9	2402	—
Grissee, outside the Solo Valley, rural popula- tion (9)	47.1	7.5	39.6	15.7	—	—	374.6	1828	—
Grissee, in the Solo Valley, rural population (9)	63.4	12.1	51.3	25.6	—	—	478.0	2398	—
BURMA									
Rangoon, Burmese la- bourers (10)	70	23.4	46.6	46.8	15.5	31.3	456.1	2592	8.5
BRITISH INDIA									
Madras Presidency, whole population (11)	51.7	3.1	48.6	45.9	1.7	44.2	472.8	2510	1.2
Province of Punjab, rural Hindus (12)	81.4	8.5	72.9	53.1	—	—	459.7	2720	—
Province of Punjab, rural Muslims (12)	75.3	9.4	65.9	39.2	—	—	445.8	2506	—
Province of Punjab, rural Sikhs (12)	89.4	13.0	76.4	58.6	—	—	487.5	2908	—

States, Great Britain, Germany, etc., where the food consumption habits are typically "Western". It will be observed that, when in the following pages expressions such as "Western consumption habits" are used, they refer to the dietary habits prevailing in the three countries mentioned, or in the other more industrialized parts of Western Europe; also in certain non-European countries such as Canada, Argentina, Australia, New Zealand, etc. In many parts of Southern and Eastern Europe, especially in the rural districts, dietary habits are no doubt more similar to Far Eastern habits than to those prevailing in the Western countries mentioned.

It will be seen that Table I shows the amounts of protein, fat, carbohydrates and calories supplied by the food consumed, Table II the percentage distribution of the total intake of calories among different foodstuffs and Table III the quantities consumed, per consumption unit and year, of the most important foodstuffs.

For various reasons the data contained in the tables have only a limited value and must be used with reserve. In reducing into consumption units the family members of a budget investigation or the total population of a country different reduction scales have very frequently been employed. When it is sought to estimate the food consumption in an entire country, great difficulty is encountered in calculating the total supply of many products, and the proportion of such products used for human consumption. The family budget investigations are often far from representative and refer often to only a limited number of families or to a limited area—a certain town, or single district—; they not seldom

- (1) ADOLPH, W. H.: Aspects of nutrition and metabolism in China. *The Scientific Monthly*, July 1929 p. 39. — (2) TAO, L. K.: Livelihood in Peking. Peking, 1928, p. 154 and appendix V, pp. xv-xxii. — (3) *Ibidem*, p. 96 and appendix III, pp. vii-xiii. — (4) YANG, S. and TAO, L. K.: A study of the standard of living of working families in Shanghai. Peiping 1931, p. 53 and pp. XLIX-LVI. — (5) GREY, E. CH.: The food of Japan. Geneva, 1928, pp. 28-29. Figures refer to "available" food and exclude only "unavoidable waste" but not the food values lost for instance in rice polishing, in conversion of rice into alcohol, in using fish and residue of soy bean as fertilizers, etc. The per capita figures in the source have been converted into "per consumption unit" figures by multiplying them by the factor 1.18. — (6) KAKI CHOSA HOKOKU (Report on the investigation of household economy). Bureau of statistics, Japan, Section of statistical tables on nutrition, 1931, pp. 5, 21, 35. This report not having been available, the figures have been taken from ISHII R.: Population pressure and economic life in Japan. London 1937, p. 185. — (7) VAN BUSKIRK, J. D.: Studies in the diet of the Korean people. *The China Medical Journal*, 1922, p. 142. — (8) SCHELTENA, A. U. P. A.: The food consumption of the native inhabitants of Java and Madura. Batavia, 1936, p. 143. The per capita figures in the source have been converted into "per consumption unit" figures by multiplying them by the factor 1.17. — (9) LEAGUE OF NATIONS. Health Organisation. Intergovernmental conference of Far Eastern countries on rural hygiene. Preparatory papers: National Reports. Reports of the Netherlands Indies. Geneva 1937, p. 122. — (10) BENNISON, J. J.: Report of an enquiry into standard and cost of living of the working classes in Rangoon. Rangoon, 1928, p. 21. The figures for the amounts of animal and vegetable protein and fat have been calculated here from the data on the nutritive values and quantities of foodstuffs consumed, given in the original source. — (11) LEAGUE OF NATIONS. Health Organisation. Intergovernmental conference of Far Eastern countries on rural hygiene. Preparatory papers relating to British India. Geneva, 1937, p. 48. — (12) WILSON D. C.: Nutrition and diet in Northern India. *The Lancet*, December 1937, p. 1447.

cover a short period only, thus bringing the consumption data under seasonal influences, and they reflect for the most part the consumption habits of only the better-to-do strata of the working population. It is also clear that consumption may undergo fairly considerable variations in a relatively short period and it is by no means certain therefore that the figures in the tables, in so far as they are drawn from enquiries or estimates dating back 10-15 years or more, give in all respects an exact idea of the consumption in 1938. As regards the figures on the intake of the various food-constituents—protein, fat, carbohydrates—and the total energy supplied, it must be remembered also that investigators may be sometimes not a little influenced by the standard tables on the chemical composition of various foodstuffs utilised in the calculations, and by the estimate of the amount of non-edible offal. Again one and the same food, for instance rice or wheat, may considerably vary in its chemical composition, especially as regards the amount of protein contained, from one year to another or from one place to another in one and the same country. Further, the quantity of edible matter in a certain product — *i. e.*, the product as purchased minus non-edible refuse — which forms the basis of calculation of the figures in Tables I and II, for many foodstuffs is not identical with the quantity actually consumed, as losses caused in their preparation or in the form of table leavings have not been taken into consideration. Finally it should be noted that the amount of gross calories in edible matter consumed are not identical with the amount of calories utilized by the body, *i. e.*, net calories, the amount of which is much influenced by the kind of preparation, the proportions of animal and vegetable ingredients of the food, etc.

In spite of all these defects and others not here mentioned which are inherent in data of the kind included in the tables, such data none the less serve the purpose for which they are being used in this article, namely, to illustrate in broad lines the main characteristics of the food consumption habits of the Far East, and the most important differences between these and the habits prevailing in western countries.

Generally speaking it can be said that compared with Occidental diets the food consumed by the Far Eastern peoples is more bulky, as containing much less of the more concentrated animal foodstuffs. The Far Eastern food intake is also less rich in *calories*, owing among other things to climate, the smaller amount of work performed on the average, and the smaller body weight of Oriental races. Whereas the average body weight for men of the Teutonic race at 30 years of age is estimated at about 70 kgs, for men of the same age of Latin race, at about 64 kgs (1), the average weight of adult males in North China amounts only to about 60 kgs (2), in South China (2), Japan (3), Burma (3).

(1) SCHALL-HEISLER: Nahrungsmitteltabelle Würzburg, 1917, p. 54.

(2) ADOLPH, W. H.: Aspects of nutrition and metabolism in China, *The Scientific Monthly*, July, 1929, p. 39

(3) MUKERJEE, R. K.: Food and Food Requirements of the Indian Labourers. *Indian Journal of Economics*, Vol. XII, 1931-32, p. 254.

Annam (1), Java to 50-55 (2) kgs, and in India (on an average of different tribes and communities) to only 50-60 kgs (3). There is little doubt also that for many millions of people in the Far East the relatively small calories intake as compared with western standards is to be explained not only by the factors mentioned but also by extreme poverty which does not permit the people fully to cover their need of energy even by means of the cheapest of foodstuffs.

From Table I it will be seen that total calories intake in most of the Far Eastern dietaries considered is lower than in Western countries, where generally speaking it amounts to 3000-3500 calories, still more in many occupations. In the Javanese family budget investigation, undertaken outside the Solo Valley in the Residence of Grisse, the total energy intake per day and consumption unit is as low as about 1800 calories; it reaches between 2000 and 2400 in the other Javanese family budgets, for Korean students and servants, and in the estimate for the whole population of Java and Madura. In most of the other examples the intake of calories is between 2500-3000 and rises considerably above the latter figure only in the case of Japanese farmers and in Grey's estimate for the Japanese population as a whole. As regards this estimate (3224 calories per day and consumption unit) it will be observed that it refers to "available" foodstuffs, with subtraction of "unavoidable waste", but not for instance with allowance for the very considerable food values lost in rice polishing, in conversion of rice into Japanese wine, in using fish and soy bean residues as fertilizers, etc. (4)

Comparing the total energy intake in Far Eastern and in Western diets, there is another point to be stressed. On the whole nutritive values in animal foodstuffs are utilised by the human organism to a greater extent than is the nutritive value in vegetable foodstuffs. The Western food intake is proportionally much richer in the former values, hence the difference between Eastern and Western diets as regards the amount of net calories supplied to the body is relatively larger than the difference in the amount of gross calories consumed in East and West.

The insignificant rôle played by *animal foodstuffs* in Far Eastern diets—a fact principally due to the low standard of living and the small area, relatively to the population, of cultivated land, permitting only to a very limited extent of the enormous waste of energy involved in conversion of vegetable into animal foodstuffs—is clearly seen from the data given in Table I. Whereas in Western diets 30-40 per cent. or more of the total calories consumed are furnished by animal foodstuffs, the corresponding percentages in most Far Eastern diets shown

(1) SOCIÉTÉ DES NATIONS. Organisation d'hygiène. Conférence intergouvernementale des pays d'orient sur l'hygiène rurale. Documents préparatoires: Rapport de l'Indochine. Genève, 1937, p. 83.

(2) SCHILTEMA, A. M. P. A.: The Food Consumption of the native inhabitants of Java and Madura. Batavia, 1936, p. 44.

(3) MUKERJEE, R. K.: Food and Food Requirements of the Indian Labourers. *Indian Journal of Economics*, Vol. Vol. XII, 1931-32, p. 254.

(4) GREY, F. CH.: The food of Japan. Geneva 1928, p. 16.

on Table I range only from 5 to 10. In the Peking and Java budgets, as well as in the estimate for the Madras Presidency, not more than about one per cent. of the total calories consumed are of animal origin, and only in the budgets of Northern India, with their relatively large amounts of milk and milk products, do the calories of animal origin form as high a proportion as about one fourth of the total (1).

As regards the total *protein* intake and the amount of *animal protein* in the Far Eastern diets, it will be seen from the tables that these are of minor importance as compared with the West and in particular that the quantity of animal protein is trifling—in Western countries as a rule it makes up about half of a total protein intake of 80-100 grammes per day and consumption unit. To give a few examples: in the United States, according to Sherman's figures based on dietary studies, the amount of animal protein consumed per day and consumption unit amounts on an average to 51.5 per cent. out of a total protein intake of 106 grammes (2), in Germany (1934-35 estimate for entire population) to 55.8 per cent. out of a total of 86 grammes (3), in Great Britain (1934, also estimate for the whole population) to 52.9 per cent. out of a total of 104 grammes (4). A number of recent family budget investigations for town workers in various western countries show similar figures (5). Far Eastern diets present quite another picture. In the workers' budgets in Peking and in the farmers' budgets in Kotawinangoen in Java, the animal protein amounts to only 1-2 per cent. of the total protein intake. In the budgets of Peking teachers, for instance, and of Shanghai labourers and in the estimate for the Madras Presidency, the proportion is 5-10 per cent.; in the Japanese and Korean as well as in the two other Javanese family budget investigations and in the Northern Indian budgets 10-20 per cent. while it amounts to about one third of the total protein intake only among Burmese workers' families in Rangoon. Between the amounts of animal protein claimed by most leading Western nutrition experts as necessary for perfect health and the actual amounts contained in Far Eastern diets, there is thus a very great discrepancy.

With regard to the low protein value in Far Eastern diets as compared with Western standards, it should be further noted that this low value is in fact still lower if one takes into consideration the bulky nature of the food, which very much lowers the coefficient of digestibility of the protein. Whereas, according

(1) WILSON, D. C.: Nutrition and Diet in Northern India. *The Lancet*, Dec. 18, 1937, p. 1147.

(2) SHERMAN, H. C.: Chemistry of Food and Nutrition. Fifth Ed. New-York, 1937, p. 530. According to PEARL (The Nations Food, A statistical study of a Physiological and Social Problem, Philadelphia 1920, pp. 247 and 254) the average consumption per day and consumption unit of protein amounted in United States in 1913-14 for the whole nation to 124 gr., of which 53 per cent. was of animal origin.

(3) V. D. DECKEN, H.: Die Ernährung in England und in Deutschland. *Wirtschaftsjahreshefte zur Wirtschaftsforschung*, 1937-38, No. 2, pp. 187, 194, 195.

(4) LLOYD E. M. H.: Food supplies and consumption at different income levels. *J. of Proceedings of the Agricultural Economics Society*, Vol. IV, No. 2 april 1936, p. 89.

(5) A list of these budgets is given in the bibliographical notes to the article "The Consumption of Meat", in *The International Review of Agriculture*, No. 12, 1937.

to Atwater, the degree of digestibility for protein of an ordinary mixed Western diet amounts to 92 per cent., the Japanese physiologist Oshima gives a coefficient of 78 per cent. for the bulkier vegetarian diet, and MacCay estimates that a consumption of 766 grammes of rice per day (dry weight), a by no means unusual quantity consumed daily by an adult in rice eating countries, will lower the coefficient to 52 per cent (1).

Although the difference between East and West as regards the place of protein of animal origin in the diet is very marked, it is still more so in the case of the consumption of fat. Whereas in typical Western budgets the total consumption of this food-constituent per day and consumption unit amounts as a rule to 100 grammes or more, in Germany, for instance, in 1934-35 estimated at 109 grammes on an average per day and consumption unit for the whole population (2), in Great Britain 1934 at 148 grammes (3), and in the United States before the war, according to Pearl, at 165 grammes (4), in most Far Eastern budgets it remains at about 50 grammes per day and consumption unit, in the case of Japan at only about 20 grammes and in the Korean and Javanese budgets at not more than 15 grammes.

Eastern and Western fat consumption habits differ however also in another important respect: the high fat consumption in Western countries is mainly of animal origin, the fat consumption in the Far East is mainly derived from vegetable sources. According to the food consumption estimates mentioned earlier and referring to the whole population in Germany, Great Britain and United States, the intake of fat of animal origin amounted respectively, to 81, 88 and 81 per cent. of the total, and similar figures are usually met with also in recent working class family budgets from Western countries. It will, on the other hand, be observed from Table I, that, except for the Northern Indian dietaries in which milk and milk products are the principal sources of fat, fat of animal origin enters only in relatively small quantities into the budgets. In the Japanese and Javanese diets its rôle is insignificant. According to Grey's estimates the quantity of animal fat "available" per consumption unit in Japan in 1925 amounted only to 4 grammes per day out of a total quantity of 21 grammes, and from the figures taken from the Javanese family budget investigations it will be seen that only 1-3 per cent. of the total fat consumption was of animal origin.

Cereals.

If we turn our attention to the place taken by the various foodstuffs in the diet of Far Eastern peoples, we shall find that the figures in Tables II and III confirm the wellknown fact that for these peoples cereals, in a much higher degree

(1) ADOLPH, W. H.: Aspects of nutrition and metabolism in China. *The Scientific Monthly*, July, 1929, p. 40.

(2) V. D. DECKEN, H.: *Op. cit.*, p. 194.

(3) LLOYD, E. M. H.: *Op. cit.*, p. 89.

(4) PEARL, R.: *Op. cit.*, p. 247, 284.

TABLE II. — *Percentage Distribution of Energy among Different Foodstuffs in Far Eastern Countries.*

	China						Java		Burma	India
	North China			South China			Peking		Rangoon	Punjab
	Farmers (1)	Middle class (2)	Day- labourers (2)	Day- labourers (2)	Teachers (3)	Labourers (4)	Shanghai Labourers (5)	Whole popula- tion (6)		
Cereals	77.8	83.3	91.9	80.4	92.8	77.1	70.1	75.4	67.9	68.2
Legumes and products thereof	10.3	3.9	1.2	5.4	0.9	0.4	3.0	0.6	0.3	0.7
Roots and tubers	8.5	2.8	0.4	4.4	2.8	3.5	9.7	2.7	5.1	0.6
Other vegetables	0.4	2.9	0.4	0.4	0.0	0.5	1.4	2.2	1.7	1.2
Fruit	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.8	1.8	0.9
Meat		4.8		5.4			0.3	0.6	0.3	0.7
Fish							3.0	2.0	0.1	0.3
Eggs		0.2	0.0	0.9			0.4	0.1	0.0	0.1
Milk		0.0					0.6	0.1	0.0	0.0
Butter								0.0	0.0	0.0
Other animal fats		3.5	4.1				7.9	0.0	0.0	0.0
Vegetable oils and fats	1.7			9.4	3.5		0.0	10.5	12.5	10.4
Sugar	0.2	0.5	0.0				5.3	3.8	1.2	2.4
Other foodstuffs	0.0	0.9	0.0				1.2	5.1	6.1	8.7

(1) BUCK, J. L.: Chinese Farm Economy. Chicago, 1930, p. 372. — (2) ADOLPH, W. H.: Aspects of nutrition and metabolism in China. *The Scientific Monthly*, July 1929, p. 39. — (3) TAO, L. K.: Livelihood in Peking. Peking 1928, p. 154. — (4) IBDEM, p. 96. — (5) YANG, S. and TAO, L. K.: A study of the standard of living of working families in Shanghai. Peiping, 1931, p. 53. — (6) GREY, E. CH.: The food of Japan. Geneva, 1928, p. 28-29. See, also note 3 under table I. — (7) DONATH, W. F.: « Menu » de la population indigène aux Indes Néerlandaises. II^e Congrès scientifique international de l'alimentation. « La Science de l'alimentation en 1937 ». Alençon, s. d., p. C 61. — (8) DEPARTEMENT VAN ECONOMISCHE ZAKEN: Geld- en Producten-Huishouding. Volksvoeding en-Gezondheid in Koetwinangoen. Buitenzorg, 1934, p. 202. — (9) IBDEM, p. 210. — (10) Energy furnished by coconut meat included under this heading, not under fruit. — (11) BENNETSON, J. J.: Report of an enquiry into the standard and cost of living of the working classes in Rangoon. Rangoon 1924, p. 19. — (12) SINGH, S. K.: Family budgets, 1932-33, of four tenant-cultivators in the Lyallpur district (The Board of Economic Enquiry, Punjab. Publication No. 40). Lahore, 1934, p. 26. — (13) Milk and milk products in terms of milk.

TABLE III. — *Annual Consumption of the Principal Foodstuffs in Far Eastern Countries.*

(Kilogrammes per Consumption Unit)

	China			Japan	Java		Burma	British India			
	North China Middle class (1)	Peking — Teachers (3)	Peking — Labourers (4)	Whole popula- tion (5)	Koetwi- nangoen — Peasants and la- bourers (6)	Grissee (rural popul.)	Rangoon — Burmese labourers (8)	Madras Presi- dency — Whole po- pulation (9)	Bombay — Labour- ers (11)	Punjab (Lyalpur district) — Farmers (12)	
					Outside the Solo Valley (6)	In the Solo Valley (6)					
Cereals	226.3	224.8	245.0	256.2	163.3	153.3	191.2	191.8	196.4	244.6	304.4
Legumes and products thereof	28.8	29.0	24.7	28.8	18.1	3.4	4.3	7.2	6.6	14.7	6.9
Roots and tubers	48.5	159.2	86.8	157.7	28.5	10.6	20.8	12.7	10	10	10
Other vegetables				54.5	30.1	32.2	40.9				
Fruit	83.2	9.1	0.5	15.7	32.3	5.8	7.4	2.0			
Meat	4.3	13.2	2.3	3.3	1.6	2.4	4.5	17.8	0.9	4.9	3.4
Fish	3.7	0.9	0.3	46.7	0.9	10.3	17.7	31.9	3.0	10	0.0
Eggs	3.2	0.1	0.3	2.2	0.1	0.0	0.4	0.2	0.4	0.0	0.0
Milk	0.4	0.1	0.0	1.8	0.0	0.0	0.0	0.0	7.6	6.0	13
Butter	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	14
Other animal fats	0.0	1.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vegetable oils and fats	2.7	3.4	1.8	0.0	20.0	4.3	7	9.2	33.4	4.4	0.0
Sugar	1.0	1.0	0.4	15.3	2.8	5.5	9.7	1.8	15.3	3.8	41.0

(1) ADOLPH, W. H.: A study of North China diets. *Journal of Home Economics*, January 1925, p. 3. — (2) Principally melons. A certain insignificant quantity of ground nuts is also included. — (3) TAO, L. K.: Livelihood in Peking. Peking 1928, Appendix V, pp. XV-XXII. — (4) INDEM, Appendix III, pp. VII-XIII. — (5) GREY, E. CH.: The food of Japan. Geneva 1928, pp. 28-29. See too note 5 under table I. — (6) LEAGUE OF NATIONS. Health Organisation. Intergovernmental conference of Far Eastern countries on rural hygiene. Preparatory papers: National Reports. Report of the Netherlands Indies. Geneva 1937, p. 122. — (7) Included under this heading is also coconut meat. — (8) BENNISON, J.: Report of an enquiry into the standard and cost of living of the working classes of Rangoon. Rangoon 1928, p. 100. — (9) LEAGUE OF NATIONS: Health Organisation. Intergovernmental conference of Far Eastern countries on rural hygiene. Preparatory papers relating to British India. Geneva, 1937, p. 48. — (10) No figures available. — (11) LABOUR OFFICE, GOV. OF BOMBAY: Report on an enquiry into working class budgets in Bombay. Bombay, 1923, p. 21. — (12) SINGH, S. K.: Family budgets, 1932-33, of four tenant cultivators in the Lyallpur district (The Board of Economic Inquiry, Punjab, Publication No. 40), Lahore, 1934, pp. 32-33. — (13) Milk and milk products expressed in milk equivalents. — (14) The total annual consumption of ghee amounted to 11.2 kg.

than for Western nations, deserve the name "the staff of life", forming 70-80 per cent. of the total amount of calories consumed, *i. e.*, a percentage about twice that in Western diets in which as a rule only one third or even less is supplied by cereals and cereal products. The staple food in the Far East is, generally speaking, rice. In North China and in certain parts of India—Punjab and the United Provinces for instance—wheat is however the most important cereal. But in India as a whole there are roughly about 240 millions rice-eaters and 100 million wheat-eaters (1). In Japan and Korea, although rice is the food preferred to all other cereals, large classes of the population are by their poverty forced instead to use the cheaper millet or barley (2).

While in Western countries cereals are now mainly eaten in the form of oven-baked bread, the cereal mainly consumed in the Far East, rice, is principally consumed cooked or steamed, and other cereals are to a great extent also taken in this form. In parts of India, however, wheat is baked in flat unleavened cakes from coarsely ground flours, and in North China it is made into dumplings, pieces of unleavened dough boiled in water, or into a kind of steamed soggy bread usually made with sour dough, close in grain, and with a leathery "crust" (3). In Japan, while barley and millet are mostly consumed in the same way as rice, wheat is mainly made into flour. In 1933-34 about half the flour produced went to the fabrication of noodles and maccaronies, about one fourth to cakes, dumplings and confectionery, only 14 per cent. to oven baked bread, and the rest to miscellaneous uses (4). The consumption of oven-baked leavened bread is however on the increase in several Far Eastern countries and especially in Japan. Bread is now obtainable in Japan in most large cities, and in the Japanese army its use is much favoured, bread offering some advantages over rice as a ration, especially for an army in movement (5). The absence of ovens in Far Eastern homes, the widespread shortage of fuel, the difficulty of obtaining good yeast or sour dough in tropical countries, the prevailing ignorance in regard to leavening among the common people, all these however are drawbacks, which for a long time will be effective obstacles to any general use of oven-baked bread in the Far East and the introduction of any other new food requiring much heating for its preparation.

Pulses.

The important place of pulses in Far Eastern diets appears clearly from the data contained in Tables I and II. Whereas in Western countries this kind of food contributes only about 1 per cent. of the total intake of calories, the propor-

(1) MUKERJEE R.: Food planning for four hundred millions. London, 1938, p. 70.

(2) MORIMOTO, K.: The Efficiency Standard of Living in Japan. Tokyo, 1931, p. 3. - LEE, H. K.: Land utilisation and rural economy in Korea. A Report in the International Research Series of the Institute of Pacific Relations. Shanghai, 1936, p. 275-78.

(3) "Japan as a producer and importer of wheat". Wheat Studies of the Food Research Institute, Vol. VI, No. 8, 1930, p. 364.

(4) "Japanese self-sufficiency in wheat" Wheat Studies of the Food Research Institute, vol. XII, No. 3, 1935, p. 79.

(5) *Ibidem*, p. 80.

tion in most Far Eastern countries is many times larger, and amounts in the Chinese and Japanese diets to not less than about 10 per cent. of the total energy supplied to the body. Pulses are eaten partly as such, partly and to a larger extent in the form of preparations such as soybean milk, pastes, sauces, etc.

Roots, vegetables, fruit etc.

The consumption of *roots*, *tubers*, and *green vegetables* in many parts of the Far East is less important than the consumption in Western countries, than is often imagined. Whereas in Germany and England, for instance, these foodstuffs contribute on an average 15 and 10 per cent. respectively of the total energy intake of the whole population—proportions commonly met with also in recent Western town workers' budgets—similar percentages are, as will be seen, only to be found for Japan as a whole and among Chinese farmers (respectively 11 and 9 per cent.). In the Javanese and in the Peking and Shanghai workers' budgets the corresponding figures do not amount to more than 2-4 per cent.

Fruit is a luxury for the poor even in most tropical and subtropical parts of the Far East. In the Japanese and Chinese diets for instance it supplies only a fraction of one per cent. of the total calorie intake, a figure very much lower than in some Western countries. In the estimates of the food consumption in Germany and England already referred to, fruit represented about 3 per cent. of the total energy supply and in a number of Western urban workers' budgets we find corresponding proportions.

Meat.

Compared with Western consumption, the consumption of meat in the Far East is insignificant. In most West European countries we find an annual meat consumption of 30-60 kg *per inhabitant*, and in Transoceanic countries of Western civilisation such as Argentina, New Zealand and Australia, a consumption as high as 121, 104 and 92 kg respectively *per inhabitant* (1930-34); in recent Western workers' budgets a meat consumption of 40-50 kg *per annum* and consumption unit is met with in many countries (1). In the Far East on the other hand, owing to low purchasing power, religious conditions etc., the situation is entirely different. In China the rural population consumes practically no meat at all except for an occasional indulgence at the time of the Lunar New Year and as regards the rural population of Japan it still holds good that meat is eaten only about once a year (2). In Siam meat among the agricultural classes is consumed in insignificant quantities mostly only once, seldom twice a month (3) and in India generally speaking it appears in the diet of well-to-do cultivators' families only about once a month (4).

(1) See tables in the article "The Consumption of Meat", *International Review of Agriculture*, No. 12, 1937, pp. 402-E and 404-405.

(2) ADOLPH, W. H.: A 4000-year Food Experiment. *Scientific American*, Dec. 1930, p. 426.

(3) ZIMMERMANN, C. C.: Siam. Rural Economic Survey 1930-31. Bangkok, 1931, p. 274.

(4) MUKERJEE, R.: Food Planning for four hundred millions. London, 1938, p. 63.

It will be seen from Table II that in many Far Eastern countries meat supplies not even 1 per cent. of the total calories. Expressed in absolute figures, the annual meat consumption per consumption unit amounted in Southern India (Madras Presidency) to not more than 0.9 kgs, among peasants and labourers, in Koetwinangoen in Java to only 1.6 kg., among Peking workers to 2.3 kg, in Japan (average for the whole population) to 3.3 kgs and among Bombay workers to about 5 kgs. In the Far Eastern budgets included in the tables we find a meat consumption of some importance only among Burmese workers in Rangoon (17.8 kgs per year and consumption unit).]

As already mentioned, meat consumption in the Far East is very much influenced by religious conditions. The Moslems in India, Indo-China, Netherlands Indies, etc., do not eat pork since they regard the pig, as do the orthodox Jews, as an unclean animal. For the Hindus in India the ox is taboo as well, cattle being the object of religious veneration. Cattle are never killed by the Hindus for food. They are employed only as draught animals and as milk yielders and are allowed to live on such fodder as is available till the time of their natural death. With the Hindus, the meat eaten is mainly mutton and goatflesh. Although a Buddhist is forbidden to kill, this commandment is observed by the different nations and sects belonging to this religion with varying degrees of strictness: the majority of Buddhists may eat meat of animals killed by other persons. This explains the fact that among Buddhists in China, Korea, Japan, Indo-China, etc., all kinds of meat are eaten, although in very small quantities as shown above. Among the three principal kinds of meat, that most largely eaten in Japan, Korea, Burma seems to be beef, while in Southern China, Siam and Indo-China, it is pork and in Northern China mutton.

Although in the Far East meat consumption is insignificant and no doubt will for a very long time remain so, there are indications of an increase in demand. In Siam for instance, although a Buddhist country, the growing contact with foreign peoples has in recent years created a rising demand for beef in Bangkok and in the large market centres, and Chinese merchants and labourers, now infiltrating into all parts of the country, have brought with them the habit of eating pork, chicken and ducks, a habit readily adopted by the Siamese in town and country (1). In Japan, meat eating in the main was resumed only about 70 years ago after the so called Meija restoration; before that time meat was eaten only by the outcast class. The consumption of meat (excluding poultry) rose from 3.8 grammes per day and inhabitant in 1916 to 15 grammes in 1929, *i. e.*, was quadrupled (2). The increase, however, as may be expected, is in the main limited to the better-to-do strata of the population and to the larger cities, especially Tokyo. In that city there are today more than 3000 butchers' stalls, where about fifteen years ago there were only three or four (3).

(1) ANDREWS, J. M.: Siam. 2nd Rural Economic Survey 1934-35. Bangkok, 1935, pp. 83-87.

(2) MORIMOTO, K.: The Efficiency Standard of Living in Japan. Tokyo, 1931, p. 47.

(3) Politiken (Copenhagen), 2 February, 1936.

Fish.

In many parts of the far East *fish* and other sea products represent a much more important source of animal protein in the human nutrition than meat. This statement is specially true for Japan, Burma, Siam, French Indo-China and the coastal regions of Java. In Japan in 1925 the fish consumption for the whole country was estimated at 46.7 kg per year and consumption unit and in Rangoon in Burma it amounted, as shown on Table III, to about 32 kg annually per consumption unit, figures met with in very few western countries, Norway for instance. In England one of the chief fish-consuming countries in Europe, the quantity annually consumed per consumption unit amounted to not more than 24 kg. about in 1934-35; in Germany in the same years to about 12.5 kg, only. In neither of these two countries was more than about 1 per cent. of the total calorie intake supplied by fish; in Japan, on the other hand, and in Rangoon workers' budgets three times as much. Fish, as well as animal marine products such as shrimps, are in the Far East to a very great extent eaten salted, dried and made into various pastes and sauces used as appetizers along with the staple food, rice.

Eggs.

The egg consumption in the Far East is everywhere insignificant among the great mass of the population. This holds good also for China, one of the world's most important egg-exporting countries, but a country too poor to allow the majority of its inhabitants the luxury of eating this relatively expensive animal foodstuff. Assuming that 17.5 eggs weight 1 kg and that in consequence the weight of one egg is equal to about 57 grammes, it will be seen from Table III that in most Far Eastern diets the annual consumption per consumption unit does not amount to more than 5 to 6 eggs and that even among the well-to-do farmer families in Northern China, where the budgets show the highest egg consumption figures, the total consumption of this food product does not amount to more than 1 egg per week and per consumption unit, only a fraction of the consumption in most Western countries.

Milk.

It is still true, generally speaking, that in the Far East milk after the time of suckling—which however may there last 2-3 years or more—ceases altogether to be a factor, except in India, in the daily food of the great mass of the population. In large tracts of China and Indo-China there even exists for it a general deep-rooted distaste. In India it is only in certain parts of the country, the Punjab especially, that milk is an item of real importance in the daily fare. In Southern India (Madras Presidency) the milk consumption per consumption unit amounted, as shown by Table II, only to 7.6 kg per annum, among Bombay labourers only to 6 kg. Owing to overstocking, serious underfeeding, absence of selective breeding, etc., the milk yield of village cattle averages only about

272 kg a year for the whole of India, and the total daily consumption of milk and milk products expressed in milk is equivalent to not more than about 200 grammes per head of population (1), a quantity many times less than that consumed in most Western countries.

Very little of the milk consumed in India is taken in the form of fresh whole milk. Even in the Punjab this kind of milk is given only to the very young and old (2). The consumption is mainly of butter-milk, the milk fat being used for the production of ghee or clarified butter. In Indo-China, Netherlands Indies and China, the trifling quantities of milk consumed consist largely of tinned sweetened milk or milk powder.

Although, as already stated, except for certain parts of India, milk is consumed only in negligible quantities in the Far East, in recent years there has been a considerable *relative* increase in milk consumption, mainly to be attributed to the rapidly expanding habit of tea-and coffee-drinking and the increased use of tinned milk in the feeding of infants and babies.

Dairy Products, fats and oils.

What has been said about milk consumption is true also of *butter*, which is of some importance only in India. Even in Japan where its use, relatively speaking, rapidly increased after the world war—at least up to some years ago—the total butter consumption in 1934 amounted only to 2 million kilogrammes, *i. e.*, per annum and per inhabitant only about 30 grammes (3).

Even in India, it will be observed there is only a very small butter consumption in the Western sense. Butter as such is in fact only eaten by Europeans and a few educated Indians, who have acquired a taste for it, and only about 1 ½ per cent. of the total milk is utilised in making this butter. The product in general consumption is ghee, or clarified butter fat. More than half of the total milk output of India or over three fourths of all the milk used for manufacturing purposes, goes to the production of ghee (4).

Cheese has not been included in the tables, being a foodstuff either not present in Far Eastern diets or present only in absolutely negligible quantities.

"*Other animal fats*", *i. e.*, other than butter, are seen from the tables to be of a certain importance only in the Peking budgets, but in these as well as in the other Far Eastern budgets available, except for those from the Punjab, it is the *vegetable oils and fats*, coconut oil, sesamum oil, linseed oil, mustard oil, soybean oil, groundnut oil, etc., which are the main sources of fat in the Far Eastern diets.

(1) WRIGHT, N. C.: Report on the development of the cattle and dairy industries of India. Delhi, 1937, p. 3.

(2) MUKERJEE, R.: *Op. cit.*, p. 62.

(3) "Der Ferne Osten - Peripherie oder Zentrum der internationalen Butter- und Käseinfuhr?" *Milchwirtschaftliches Zentralblatt*, No. 10, 1937, p. 135.

(4) WRIGHT, N. C.: *Op. cit.*, p. 159.

Sugar.

Nearly everywhere in the Far East the rôle of sugar as a source of energy is much less than in most Western countries and refined sugar is a luxury, eaten only in trifling quantities on special occasions or offered to guests (1). In all the budgets included in our tables, a sugar consumption of Western proportions is only found in the Punjab budgets, in which this foodstuff, mostly however in the shape of raw sugar, represents about 10 per cent. of the total calorie intake, in a quantity of nearly 40 kg. per annum and consumption unit. A certain sugar consumption is also to be found in the estimates for Japan and the Madras Presidency (about 15 kg. per annum and per consumption unit, corresponding to between 5 and 6 per cent. of the total energy intake), but in all the other budgets mentioned in the tables the rôle of sugar is insignificant. In the Chinese diets for instance the annual consumption per consumption unit amounted only to 1 kg. or less, representing not more than a fraction of one per cent. of the total energy intake.

H. LINDSTEDT.

INTERNATIONAL ORGANIZATION OF THE COFFEE MARKET

SUMMARY: International Coffee Conference at Seville. - International Coffee Conference at São Paulo. - The London Monetary and Economic Conference. - International Conference at Bogota. - International Conference at Havana.

The International Coffee Conference at Seville.

International efforts for the organization of the coffee market are a matter of recent date. The following is a brief survey of the phases in the history of these efforts from the Seville Conference of 1929 to the Havana Conference of 1937.

The chief exporting and importing countries, with the exception of Brazil, were represented at the Seville Conference of 1929.

Spain proposed the constitution of an international Coffee Office, to study all questions affecting the production, transport, and consumption of this commodity, to prepare statistics, organize propaganda for the increase of coffee consumption, and to convene further conferences.

The Office in question was instituted in Madrid by *Real Orden* of 27 February 1930, but only Belgium and Venezuela were represented (2).

(1) ROBERTSON, C. J.: Sugar Consumption in the East. *The International Sugar Journal*, Oct. 1935.

(2) HOUILLIER: *L'Organisation internationale de l'Agriculture*. Paris 1935, p. 218.

International Coffee Conference at São Paulo.

The second International Coffee Conference met at São Paulo in 1931.

The discussions of this meeting resulted in a plan of collaboration which was to be examined by each of the countries concerned and discussed further at a subsequent meeting. This project never materialized.

The scanty results achieved by this Conference, which, in the intention of its promotor, was to have resulted in the adoption of international restrictive measures, are mainly due to divergence of opinion between the several delegations, to the fact that several delegates were not vested with plenary powers, and that certain important producing countries were not represented.

It will not, however, be devoid of interest to outline briefly that part of the proposed agreement dealing with an International Coffee Office.

The terms of the programme of work assigned to this Office were as follows:

(a) to organize statistics of the production and consumption of coffee and its principal substitutes;

(b) to devise and put in operation ways and means to increase coffee consumption and open up fresh markets (general advertising, campaign against substitutes, measures to improve trade and increase consumption). It was specifically declared that the Office's propaganda was to be of a general character (no mention to be made of particular brands, nor indication of origin or other particulars to be given concerning any products). Each country to be left free, as in the past, to advertise its own products as it pleased;

(c) to study how best to cooperate with the competent authorities to obtain a reduction of customs tariffs, so as to enable coffee to be sold at the lowest possible price, thus promoting an increase of consumption;

(d) to study the most appropriate means of financing the coffee industry and trade, and the feasibility of establishing an International Coffee Bank;

(e) to enquire into transports and freights to the several coffee consuming markets, and means for improving transport and reducing freight rates.

The Conference requested the Brazilian Government to invite all the producing and exporting countries and the others that had taken part in the São Paulo Conference, to send delegates with plenary powers to the next conference, which was to meet in 1932 at Lausanne for the sole purpose of organizing the International Coffee Office in accordance with the programme drawn up at São Paulo. It was further agreed that the participation of all, or the great majority, of the producing countries was an essential condition to its constitution.

The coming Conference was to take the necessary decisions for the convocation of further conferences, to enquire into the functioning of the Office and the work of the officer appointed to supervise its services, and to discuss other questions relating to coffee.

The funds for the upkeep of the Office were to be contributed by the several countries in a measure proportionate with their coffee exports during the past three years; the contributions for the first years of organization were not to exceed, however, 5 cents of a dollar per bag of 60 kgs. Later on, each country would decide for itself on what basis to fix the amount of its contribution.

A period of three years was in the first instance proposed for the duration of the Office, with the option of prolonging this term by periods of five years.

It was further agreed that the Office might, at a subsequent conference, propose the institution of a permanent court of arbitration to consider and decide cases laid before it by the various countries (1).

This resolution of the Congress remained, however, a dead letter. Thus neither by the Seville nor by the São Paulo Conference were any satisfactory results achieved.

The London Monetary and Economic Conference.

In 1933, the Brazilian Delegation submitted two proposals regarding coffee to the London Monetary and Economic Conference.

In the first place the delegation proposed the inclusion of coffee among the foodstuffs the production and supply of which should be internationally organised, and proposed, as a basis of such organisation:

(I) as regards producing countries:

(1) that all the principal coffee producing countries should participate in a scheme for reduction of production and supply;

(2) the prohibition of any new plantings of coffee until equilibrium had been attained between production and consumption;

(3) the gradual reduction of coffee planting by the most rapid and practicable means available;

(II) as regards consuming countries:

(1) all measures for limitation of imports should be removed as soon as possible;

(2) customs and excise duties levied on coffee should not be higher than those levied on coffee substitutes or substances to be used in the preparation of such substitutes or mixtures;

(3) duties and taxes levied on foodstuffs such as coffee by non-producing countries may never be allowed to exceed the value or cost price of such products (2).

The Delegation submitted another more detailed proposal of wider scope, in the form of a draft international Coffee Agreement (3).

The question was debated at length and the Sub-Committee to which the examination of the draft proposal had been referred made a report to the Conference, which was adopted (4).

(1) COFFEE IN 1931 AND 1932. ECONOMIC AND TECHNICAL ASPECTS. International Institute of Agriculture, Rome 1934, p. 54-56.

(2) MONETARY AND ECONOMIC CONFERENCE. League of Nations doc., Conf. M. E. E. C./19, London, 21 June 1933.

(3) MONETARY AND ECONOMIC CONFERENCE. League of Nations doc. M. E. Conf. C. E./83, London, 14 July 1933.

(4) MONETARY AND ECONOMIC CONFERENCE. League of Nations doc. C. 435, M. 220, 1933-II. Report approved by the Conference of 27 July 1933 and Resolutions of the Bureau and Executive Committee, P. 26.

The Report submitted that while coffee was an article of primary importance in international trade, its production during recent years had been greatly in excess of consumption, as proved by the situation of world stocks and price levels. In conclusion the Sub-Committee expressed the opinion that coffee is an article of such importance as to call for an enquiry into the possibility and expediency of concerted international action, and recommended the exporting countries to study the most practical means of regulating their production and supply, and to examine how far it would be possible and practicable to enter into negotiations with the importing countries with a view to promoting coffee consumption through the suppression or mitigation of the present restrictions and trade barriers of all kinds. In view, however, of the impossibility of prosecuting the examination of this question during the existing phase of the Conference, and as a basis for discussion at some future date, the Sub-Committee recommended that all the proposals of the exporting countries, tending to co-ordinate the production and marketing of coffee and to establish in due course an international body, should be submitted to the General Secretary of the Monetary and Economic Conference, to be communicated for consideration to the exporting countries.

International Conference at Bogota.

The Conference at Bogota was held from 5 to 10 October 1936. Nine American countries were represented. Their total production amounted to about 22 million bags of coffee, *i. e.*, about 80 per cent. of the world output. No programme had been fixed in advance for the meetings of the conference, which were of a private character, though the public was of course informed of their findings.

One of the results of the first meetings was a unanimous agreement of the coffee organizations represented to take part in a concerted action regarding coffee prices. The importance of this agreement is reflected not only in the immediate trend it imparted to the conference, but also in the influence it exerted on subsequent discussions. After stressing the fact that for several years past prices on the foreign markets had been unremunerative for the producers, that the coffee trade had suffered not only from the decline in prices, but also from speculation which had caused great uncertainty in prices, equally harmful to coffee roasters in importing countries and to American growers, it was recommended that the price of coffee beans be fixed at a level not too high for the consumer, but sufficient to guarantee dealers against losses, and at the same time to ensure a fair remuneration to the growers, enabling them to maintain their standard of living and increase their purchasing power, in the consumers' interest no less than in their own.

To this end the Conference recommended that the producing countries of America would cooperate in an effort to maintain a reasonable price equilibrium by sacrificing a part of their crops, as Brazil alone had done up to the present with advantage to the industry as a whole, as acknowledged by the other producers.

All the organizations represented at the Conference were therefore invited to act in concert and to do everything in their power to maintain the prices of the various coffees at a certain level, proportionate to the prices fixed for Brazilian coffee, which should be taken as the basis. They were further urged to take all the requisite measures and to use all their resources to maintain on the national markets prices equivalent to those of the foreign markets, after due deduction of expenses.

Another important resolution was passed in favour of the organization of a Pan-American Coffee Office at New York.

This Office, composed of representatives of all the producing countries or of each coffee organization taking part in the Conference, was required to draw up at regular intervals statistics and reports on the present and past situation of coffee in the producing and consuming countries. These reports were to be placed immediately at the disposal of member Organizations. Another special function assigned to it would be to give effect to the agreements and resolutions passed by the Bogota Conference and by any other subsequent meetings.

The expenses of this Office were to be met by the Coffee organizations of the exporting countries: countries exporting less than one million bags per annum to pay a minimum subscription of 50 dollars monthly; those exporting larger quantities to contribute proportionately to their exports to the United States, up to 1000 dollars. The Office was to start working on 1 December, but the date from which contributions were payable was fixed as 1 November.

In connection with the establishment of this Office, the Conference took up the question of the absence of producers' organizations in certain American countries, and recommended that they should be constituted wherever necessary, in the producers' interest.

Among the questions dealt with at Bogota were that of the restrictions and difficulties hampering coffee importation, and that of the exportation by some countries of inferior qualities discrediting coffee and encouraging the use of substitutes.

Dealing with the first of these questions, the Conference stressed the injury done to the international coffee trade by the policy recently adopted in Europe of clearings, allocations, quotas, import permits, etc. — a policy which is held directly responsible for the decline of prices — and concluded its criticism of these methods, and of clearings in particular, by recommending that the Pan-American Office should formally invite the Boards directing the coffee trade by such means to abolish all these restrictions hampering international trade and to return to a policy of freedom.

The Office was asked to present to the affiliated institutions of member countries a report on the results of these efforts, and if they had failed to study and recommend measures of collective defence to be adopted in unison by the producing countries.

These measures, based on principles of justice and international cooperation, were to be discussed by the federated organizations with the authorities of their respective countries.

The National Federation of Coffee Growers of Colombia was requested to communicate this resolutions by diplomatic channels to all the American countries.

As regards the second of the two questions, the Conference being convinced from observation of the consuming markets that the use of inferior qualities tends to limit the consumption of coffee and encourage its replacement by other beverages, that their presence on the markets does harm to the exporting countries by the discredit brought on the growers and by the inevitable fall in prices, and lastly that efforts to improve qualities and prices are always of great economic and social value, a resolution was passed recommending all producing countries to prohibit the exportation of coffee containing foreign substances, or coffee of a quality inferior to Grade 7 on the New York Exchange, or more than 20 per cent. of black beans. The attention of producers was also drawn to the need of avoiding fermentations of a kind tending to spoil the aroma of the coffee.

The Conference further proposed that the producing countries should immediately lay down precise official specifications of the qualities on sale on the national markets and continue to abstain from cultivating other coffees than *arabica*. It recommended that this quality should be adhered to, since American countries had not hitherto cultivated on a commercial scale varieties of the *liberia*, *robusta*, etc. types.

The Conference also recognized the urgent need of an advertising campaign in the United States along the lines worked out by the Associated Coffee Industries of America, to promote the general consumption of coffee.

In considering the means for raising the requisite funds for carrying out this program—*i. e.*, the collection of 10 cents on the freight of each bag of coffee imported by the United States—the Conference was faced with difficulties which appeared insurmountable. For instance: there was no means of enforcing payment of this charge on importers unwilling to pay it, and hence it had to be regarded as a voluntary tax, thus placing those who refused to pay in a privileged position. Experience hitherto had proved this difficulty to be so serious as completely to frustrate the efforts made two years previously by the Associated Coffee Industries to promote an advertising campaign without the consent of the producing countries. Moreover, Colombian, Venezuelan, and Central American coffees are burdened with such heavy freights that they could not bear a supertax of this kind. And lastly, such a plan would be equitable only if it included the whole of the coffee imported into the United States, as American countries would not consent to grant a premium of ten cents per bag to Colonial coffees, which are already privileged.

The Conference therefore recommended the producing countries, and requested the Associated Coffee Industries of America to transmit to the Pan-American Coffee Office their own suggestions for the practical and equitable financing of the publicity in question, with a view to calling a meeting in Washington to draft an agreement on the lines proposed by the Association.

The Conference also dealt with the question of the high import duties and internal charges levied by a number of European countries, and passed a resolu-

tion in favour of a request being made to the governments of the producing countries to open negotiations with the governments in question to obtain a reasonable reduction of the duties and charges levied on American coffee.

We should mention also the resolution in favour of the adoption of a uniform method for coffee statistics based on the calendar year; another resolution recommending that the Pan-American Coffee Office should draw up a scheme to be submitted for consideration to the next Conference for a fair and proportionate distribution of coffee on the consuming markets, and lastly another in favour of holding yearly meetings of the Pan-American Coffee Office (1).

Immediately following on the Bogota Conference, meetings were held on 23 November in New York of the representatives of the coffee producing countries of the Pan-American Union. These meetings lasted fifteen days.

The chief result was an agreement on fixing relative parities between the prices of the principal types of coffee to serve as a basis for the coffee policy of the countries adhering to it. Schemes were also examined for an advertising campaign in the United States and the organization of the Pan-American Coffee Office.

The functions of this Office set up by the Bogota Conference were further defined as follows: the Office, under the direction of a Board of Management formed by delegates of the interested bodies, officially represented by a director and two secretaries, was to study the production, distribution, and consumption of coffee, and all other questions closely affecting the industry; to co-operate with other associations in matters of common interest, and to carry out in the spirit of the Bogota Conference the resolutions already passed as well as those that might be passed on the occasion of subsequent conferences. To these functions should be added that of collecting and diffusing information on coffee trade conditions in the producing and consuming countries, the encouragement of open and loyal competition, the study of questions affecting the interests of members, and of measures in general likely to promote the progress of the industry as a whole. But one of its chief endeavours should be to harmonise all the different interests concerned with coffee by bringing the growers into touch with importers, roasters, and other divisions of the trade (2).

International Conference at Havana.

The second Pan-American Conference met at Havana from 9 to 19 August 1937.

Nine countries only had taken part in the Bogota Conference, but 15 were represented at Havana: namely, Brazil, Colombia, Costa Rica, Cuba, Ecuador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Porto Rico, Republic of San Domingo, Salvador, the United States, and Venezuela. The United States, Honduras, and Porto Rico were present in an observing capacity only. Countries

(1) *Tea and Coffee Trade Journal*, November 1936, p. 364.

(2) *Tea and Coffee Trade Journal*, December 1936, p. 407.

not previously sending delegates were Ecuador, Panama, and Republic of San Domingo (1).

Before surveying the main discussions and resolutions passed by the Conference, mention should be made of the important opening statement made by the Brazilian delegate, who drew attention to certain points, an understanding of which throws light on the discussions and resolutions of the Conference and also on subsequent events.

In the first place he called attention to the negative result of several resolutions passed by the Bogota Conference: restriction of exports of low grade coffees, promotion of consumption in the United States, and lastly the protection of prices.

In regard to the exportation of low-grade coffee, the Brazilian Delegate declared that his country continued strictly to prohibit the exportation of all qualities inferior to Santos No. 8, but that other countries had passed no restrictive measures.

As for the promotion of coffee consumption in the United States, no action had been taken despite all the valuable data collected and translated by the Pan American Coffee Office, based on material furnished by the Associated Coffee Industries of America, while his country, he declared, was still bearing the whole burden of price defence. The hopes of co-operation which had been engendered by the Bogota Conference resolutions had come to nothing, and the agreement on prices stipulated subsequently between Brazil and Colombia had proved a failure.

In like manner, Brazil had been the only country to prohibit new plantings, to ban the exportation of low grade coffee, and to destroy part of its stocks so as to avert further declines in prices.

The Brazilian delegate considered that the second Conference should, *inter alia*, arrive at a basic agreement on the following points:

a) prohibition of new coffee plantings for a period of five years, so that the problem of over-production should not become more serious;
b) prohibition of exports of coffee of quality inferior to No. 8;
c) financing of an advertisement campaign for coffee in the United States, and possibly on other markets so as to exploit all possibilities of increase of consumption;

d) co-operation to sustain prices on levels such as would not damage the legitimate interests of growers, distributors, or consumers, whose interests were in fact complementary rather than antagonistic to one another.

The Brazilian delegate regarded this as the minimum programme to ensure useful co-operation; his country being, in fact, neither willing nor able to pursue further a path of one-sided sacrifice, and therefore likely to rescind among other measures those on exports of low-grade coffee, and to enter upon a price war (2).

(1) *Tea and Coffee Trade Journal*, September 1937, p. 139.

(2) *Tea and Coffee Trade Journal*, September, 1937, p. 184.

In the course of the discussions a very marked difference of views became apparent between the delegates of Brazil and Colombia; the latter proposing that quotas should be fixed on the basis of the quantities exported to the United States, while the former insisted on the restriction of plantings. The general view expressed was that any agreement between Pan-American producers with the object of restricting production would be to their disadvantage in the absence of a world-wide agreement, since African and Asiatic planters would remain free to increase their production.

A decision on the restriction of new plantings was adjourned to the World Coffee Conference to be held in 1938.

As regards the scheme of export quotas that had been accepted in principle, a wide divergence of views was noticeable as to the quotas to be allocated to the several countries. The delegate of Colombia asked that they should be fixed on the basis of exports to the United States during the past four years, but the Brazilian delegate pointed out that his country's exports to the States during recent years had been considerably below the normal level, and asked that the quotas should be fixed according to production and exports over a longer period. There was also disagreement between these two countries on the question of price parity, Brazil asking that the Delegate of Colombia should accept an agreement similar to that executed in December 1936 at New York. By the terms of this agreement, Colombia was to keep up the price of Manizales coffee at a minimum of 12 to 12 ½ cents, while Brazil pegged Santos 4 at a minimum of 10 ½ cents. This meant a difference of 1 ½ cents between the two basic standards. Colombia had however claimed that maintenance of the price parity was too burdensome.

The other countries represented at the Conference supported the Brazilian proposal, but Colombia declined to come to an agreement.

The president of the Conference proposed as a solution to defer all further discussion and the decision of the questions of quotas and parities of prices to the Pan-American Coffee Office, these being matters that could not be settled without careful consideration of the diverse special conditions of the countries concerned. The Conference accepted this proposal and on the initiative of Brazil it further fixed a period of 60 days for the settlement of the question of parity (1).

The Conference passed also the following nine resolutions: advertising campaign for the increase of coffee consumption in the United States and other countries: all signatory countries to contribute 5 cents on each bag of 60 kg. of coffee exported. For the time being this levy would apply only to exports to the United States. The funds accruing therefrom, estimated at about 700,000 dollars a year, were to be administered by the Pan-American Coffee Office, and 80 per cent. of this sum was to be devoted to advertising in the United States and the balance to finance similar measures in other countries.

(1) *Tea and Coffee Trade Journal*, September 1937, p. 154.

Another resolution was passed in favour of legislation to stop the export of low grade coffees: it being proposed that for a period of one year as from 60 days after the close of the Conference, no quality inferior to No. 8 on the Coffee and Sugar Exchange of New York should be exported. On this point, the Brazilian delegate stated that if within the said sixty days the signatory countries had not taken steps to put this agreement into execution, Brazil would resume liberty of action by rescinding the laws prohibiting the export of inferior qualities, and enter into competition with other countries exporting them (1).

The other resolutions touched on:

- (a) internal reorganization of the Pan-American Coffee Office;
- (b) efforts at closer co-operation between the governments of the producing countries for carrying out measures affecting the distribution and consumption of coffee;
- (c) an agreement to hold similar the Pan-American Coffee Conferences every year;
- (d) an application to be made to the Pan-American Coffee Office requesting it to present within 15 days from the close of the Havana Conference a report on the description, classification, and minimum export qualities fixed by the resolution banning export of low grade coffee;
- (e) joint action by all the producing countries to obtain reduced freight rates;
- (f) the co-ordination of coffee statistics;
- (g) efforts towards co-operation by the 15 countries represented at the Conference to obtain a reduction of the European restrictions on coffee imports (2).

Since no definite results accrued either from the Havana Conference nor from the subsequent efforts of the Pan-American Coffee Office, at the beginning of November 1937, the Brazilian Government abandoned their policy pursued up to that time for the defence of coffee prices, and has now adopted a different course of action (3). By Decree of 3 November, export restrictions were terminated, and Brazilian coffee was thus placed on a competitive parity with other growths. On 13 November, the export tax on coffee was reduced from 45 to 12 milreis per bag.

The defence policies, according to the statement of the Government, was abandoned only after all attempts had failed to secure the co-operation of other leading producing countries (4).

F. ARCOLEO.

(1) *Tea and Coffee Trade Journal*, September 1937, p. 154.

(2) *Tea and Coffee Trade Journal*, September, 1937, p. 139.

(3) *Monthly Crop Report and Agricultural Statistics* of the International Institute of Agriculture, May 1938, p. 434.

(4) *Tea and Coffee Trade Journal*, December 1937, p. 333.

INTERNATIONAL CHRONICLE OF AGRICULTURE

FRANCE

In the first days of May the French Government decided to allow the franc to slide, fixing the minimum limit of its value at the rate of 179 francs for the pound sterling—though without excluding the possibility of a recovery. Since then the franc has remained, except for one upward move in June and at the beginning of July, very close to the minimum limit. In spite of the monetary crisis, the rate of discount of the Bank of France had remained at 3 per cent. from November 1937 to May 1938; in May it fell to 2 $\frac{1}{2}$ per cent., but at the end of September it was again fixed at 3 per cent.

The total value of France's external trade in April 1938 was 6,241,000,000 francs, a figure higher than that of March, when it was 5,758,000,000 francs; but less than the figures of the preceding months. In May it was 6,202,000,000; in June 6,102,000,000 and in July 5,787,000,000 only and in August 6,195,000. Both exports and imports, but especially the former, contributed to the considerable advance which occurred from March to April. On the other hand, the decline in July related almost exclusively to imports, the result was an improvement in the visible monthly balance. In August there was an increase in imports and an almost equal increase in exports. The deficit of the trade balance has also fallen since the beginning of the year as compared with the very heavy deficit of 1937. The volume of imports are down on last year while exports are about the same.

The general weighted index of wholesale prices of 126 commodities as established (1) by the *Statistique Générale* (1913 = 100) rose from April to the end of June. Since then it has fallen; at the end of July it stood at 652, and at the end of August at 649 or somewhat below the May level of 654, but well above that of July 1937.

Weather conditions have been fairly favourable for the wheat crop and less favourable for secondary cereals. The Wheat Office estimates the wheat harvest in France at 59 million quintals. It estimates that the total available supply, from the 1938-39 crop including the Algerian and Tunisian harvests, the Moroccan quota and stocks, at 96 million quintals, which is 20 million quintals greater than the national consumption. Forage crops suffered from an exceptionally dry spring; the drought was very severe not only in France but also in North Africa. A large number of animals had to be slaughtered.

These slaughterings caused congestion on the meat market, and prices fell from April to end of June. The fall was particularly great in the case of veal. In July and August the price index of animal products (calculated on the base 1913 = 100), rose; at the end of July it was 549 as compared with 563 in June and 550 in July 1937. In August it was 628. Meat prices recovered. However beef and veal prices had fallen so low that at the end of August they still remained lower than at the

(1) This is preferred here to the non-weighted index of 45 commodities, which is too much affected by imported products and does not reflect the national situation so accurately.

corresponding period of the previous year. Prices of crop products rose considerably from April to the end of June, but since then have declined. Their index was 655 at the end of July as compared with 549 in July 1937 and at the end of August was 623. The prices of secondary cereals have fallen considerably.

Among products bought as farm requisites, there was a rise in the price of nitrogenous fertilisers in May.

I. — MEASURES AFFECTING MARKETS AND PRICES

Trade Agreements.

On July 2, 1938 (1), France signed a trade agreement with Germany regulating various economic and financial questions raised by the absorption of Austria into the Reich, and modifying certain previous agreements. The Franco-German agreements on trade exchanges and commercial payments apply henceforth to the territory of the former Austria. Austrian and German quotas are pooled. Foreign currency intended for payment of imports from France into Germany and into Austria will be distributed according to a new list of percentages which replaces that appended to the agreement of July 10, 1937.

Since April, France has concluded a number of commercial agreements and payments agreements.

The trade agreements have included those with Nicaragua, Guatemala, Haiti and Venezuela. The agreement with Nicaragua, signed May 4, 1938, came into force on July 12, (2); it will have validity for one year and is then renewable by tacit consent. Nicaragua obtains the most favoured nation clause for a certain number of products, and in return grants to France a consolidated reduction of customs duties applicable (among commodities which concern this Chronicle) to champagnes, cognacs and armagnacs, liqueurs and brandy, and red and white wines. The agreement also contains clauses relating to the protection of appellations of origin.

On June 14, 1938 an exchange of notes between France and Guatemala came into force (3). The provisions will be applicable for one year and may be renewed by successive periods of one year by tacit consent. Guatemala obtains the most favoured nation clause for a certain number of products. In return France secures most favoured nation treatment for the whole of the imports into Guatemala from France and the French colonies, and consolidations of customs duties applicable to various agricultural products including dried milk and cream, milk and cream powders, or milk and cream mixed with other substances not specified; malted or lacteated meals and other foods on a cereal basis intended for children and invalids, also to wines and to liqueurs. Provision is made for the protection of appellations of origin.

The trade agreement with the Republic of Haiti, signed June 24, 1938, was published in the *Journal Officiel* of June 26 (4). It came into force on the same day. By the terms of this agreement, the Republic of Haiti obtains the most favoured nation clause for a certain number of products. In return France secures the most

(1) *Journal Officiel*, August 6, 1938. — (2) *J. O.*, July 12, 1938. — (3) *J. O.*, June 14, 1938. —

(4) *J. O.*, June 26, 1938.

favoured nation treatment for all products originating in, and in provenance from, France, French customs territory, French Colonies and Protectorates and countries under French Mandate; a consolidation of customs duties, applicable (among the commodities with which this chronicle is concerned) to cheeses, wines and liqueurs, the origin of which is attested by certificates of origin; and reductions of duties on the same commodities if within a certain period French sales in Haiti do not reach certain figures. This agreement also contains clauses relating to the protection of appellations of origin especially for wines.

The exchange of notes between France and Venezuela of August 9, 1935, already extended in August 1936 and in 1937, was again renewed on August 9, 1938. This new arrangement confirms the principle of reduction of customs duties by which certain French products (wines, champagnes, cognacs and armagnacs) already benefited in Venezuela.

As regards agreements relating to payments, those with Italy and with Latvia (1) may be cited.

Customs Tariff.

The Government is empowered to proceed by Decree to the revision of the customs tariff within a period expiring on December 1, 1938. The duties on agricultural products can be modified by this procedure only in an upward direction (2).

Measures intended to Increase Exports by Improvement of the Quality of Products.

A Decree-Law of June 14, 1938 (3) amended and supplemented the Law of August 1, 1905 on frauds extending its application to all exporters of French commodities bearing marks, of a kind to give rise to the belief that they have been inspected and passed by the French Government, when such is not the case.

The Wheat Market.

Imports. — The import into France of hard foreign wheat has been authorised since April 1, 1938 till a date which will be fixed by the Administrative Committee of the Wheat Office, on the initiative of the Algerian section (4).

Special system of advance exportation. — The special customs regime of advance export of wheat has been extended to malted grain. (5)

A Decree of May 19, 1938 (6) has put on the same basis as advance exportation the warehousing in view of export of biscuits and food pastes which may under the law be exported as compensating subsequent imports, and the warehousing of flours in respect of which the same right exists, and intended for victualling of ships

(1) *Journal Officiel*, May 1, 1938 and April 17, 1908. — (2) *J. O.*, June 26, 1938. — (3) *J. O.*, June 15, 1938. — (4) *J. O.*, April 13, 1938 and June 11, 1938. — (5) *J. O.*, April 16, 1938 — (6) *J. O.*, May 24, 1938.

sailing for foreign ports, to the French Colonies and Establishments (except Algeria and Tunisia) or to territories under French mandate, as well as for supplies of fishing boats entitled to customs-free revictualling.

From June 14, 1938, the advance export of soft wheat brans has been suspended (1).

Reform of the Wheat Office. — A Decree-Law of June 17, 1938 (2) increased from 51 to 52 the membership of the Central Council of the Wheat Office and from 29 to 30 the number of representatives of the wheat growers.

A safety stock is instituted.

In addition to the formation of stocks and the export of surpluses, provision is made for methods of utilisation other than milling with a view to human consumption, such as transformation into stock feeds and distillation. Provision is made for the purchase by the commercial monopoly of alcohols of a fixed quota of alcohol from grain. This is fixed for a period of 10 years at 700,000 hl. per year, which will make possible the reabsorption of nearly 2,000,000 quintals of wheat. The purchase price is that of beet alcohol of the quota, multiplied by the coefficient 1.3; to obtain this price the suppliers must be able to prove that the price paid to the cereal growers is in relation to that of the alcohols. A new account relating to the alcohols extracted from grain is opened in the books of the Alcohol Monopoly. This account is to be credited with a share, to be fixed by the Ministers of Finance and of Agriculture, of the proceeds of a special supertax on petroleum-yielding substances which was instituted by a Decree of June 17, 1938 (3); with a share fixed in the same way by the Ministers of Finance and Agriculture of the increase of the customs duty on rice, durra, millets, canary seed and carobs; with a third of the yield of the tax of 2 francs per quintal on imported secondary cereals of foreign or colonial origin; and finally, so as to ensure in any case the financial equilibrium of this account, of an annual subsidy from the Wheat Office, of not less than 50,000,000 francs. With a view to the payment of this subsidy to the Alcohol Monopoly, there will be collected each year on each quintal of wheat bought by the utilising industries or sent to be milled by an agricultural co-operative society or on its account, a levy equal either to the difference between the price of wheat applicable in the month of delivery and the price ruling at the end of the season, or to a fraction of this difference, such fraction not to be less than a fourth, and the exact proportion to be fixed at the same time as the price of wheat. This levy will be paid by the utilising industries and the co-operative societies to the indirect taxes administration for the account of the Wheat Office.

To assure the Wheat Office the necessary financial resources in periods of surplus, the quantities of wheat delivered to the stocking organisations are subjected in those periods to an exceptional levy which in such cases will take the place of the tax on production. However, when the whole of the crop of the year with the carry-over of the preceding seasons does not exceed 90,000,000 quintals, the levy will not be made on growers who do not sell more than 50 quintals of wheat in the course of the season. The supply for the 1938-39 season has been estimated at more than 90,000 quintals and therefore the levy will be made on all growers. The rate of this levy is progressive varying with the quantity of wheat produced. As regards wheats consigned to grain dealers, the Regional agricultural credit banks, through the inter-

(1) *Journal Officiel*, June 10, 1938. — (2) *J. O.*, June 26, 1938. — (3) *J. O.*, June 26, 1938.

mediary of which the dealers are obliged to pay for their purchases of wheat, will deduct the amount of the levy due, on the information supplied by the dealers. The stocking organisations and the agricultural credit banks will pay in the proceeds of deductions made to the indirect taxes administration which will receive it for the account of the Wheat Office.

The observance of the compulsory coefficients of extraction in bread-stuff flours as fixed by the Wheat Office will be checked by means of delivery certificates which can be issued only up to the maximum to be determined by application of these rates to the quantities of wheat sent for milling.

It was decided not to establish wheat production quotas.

Fixing of the Price of Wheat. — The Central Council of the Wheat Office has fixed at 204 francs the hectolitre the price of wheat for the season 1938-39. The average rate of the permanent levy prescribed by the Decree Law of June 17, 1938 was fixed by the Central Council of the Wheat Office at 8 francs, of which 4 francs is paid by the growers; the resultant price of a quintal of wheat at place of production is 200 francs. The basic rate of the exceptional levy to be paid by the growers has been fixed at 12 francs. This contribution is increased, temporarily, by a supplementary levy of 50 per cent. up to the time when the expenses of reabsorption shall have been precisely determined. The price of wheat is thus provisionally established at 182 francs for growers of less than 100 quintals, this figure being reduced for the larger growers, according as the rate of the levy increases.

Quota fixing in respect of the Mills, in application of the Decree-law of October 30, 1935. — The proposals submitted by the Milling Trade Committee, and approved by a referendum of millers (1), have been adopted by the Government. In consequence, the number of quintals of wheat which each mill is empowered to grind yearly for internal consumption is equal to the arithmetic mean of its maximum actual milling (not including wheats brought in under the regime of temporary admission), reported in the course of the years 1927 to 1935, and of the annual milling capacity of the mill calculated on 300 days to the year. This latter factor in any case constitutes a maximum. This quota came into force as from July 1, 1938. Before October 1, 1938, the professional Committee of the Milling Industry has to draft the rules of a vocational organisation, to be called the *Caisse professionnelle de l'industrie meunière*, which will ensure the progressive and methodical absorption of the means of production by the corporate purchase of certain mills. The statutes of this organisation must be approved by decrees countersigned by the Ministers of Agriculture and of Finance. Only members of this organisation will be entitled to the assignment of a milling quota (2).

A Decree-Law of June 17, 1938 (3) lays down measures for the milling of semolina similar to those applying to flour milling; a professional Committee of semolina millers has been formed in order to study various questions, and more particularly the quota for mills manufacturing hard wheat semolinas (4).

(1) See "France" in the International Chronicle of Agriculture in the January 1938 number of this Bulletin. — (2) *Journal Officiel*, June 26, 1938 and June 29, 1938. — (3) *J. O.*, June 26, 1938. — (4) *J. O.*, July 26, 1938.

Secondary Cereals.

Import Tax. — A Decree-Law of June 17, 1938 (1) has established for a period of ten years a special tax of 2 francs per quintal on oats, barley, rye, buckwheat, rice, durra, millet and canary grass imported from abroad, from the colonies and protectorates, and territories under French mandate. This tax will be paid cumulatively with the customs duties.

Import Quotas (2). — For barley not intended for brewing a quota of 100,000 quintals is established for the third quarter of 1938.

On the other hand, the quarterly quotas for the import of maize from foreign countries remain reduced by comparison with last year.

Fodders.

By a Decree of May 20, 1938 (3) the export of fodders is prohibited.

Butter.

Institution of a Quality Mark for Butters intended for Export. — A Decree of April 7, 1938 (4) has instituted a quality mark for butters intended for export. The export bounties may be increased for butters benefiting by this quality mark, but this increase may not exceed two francs per kg. This quality mark will be issued by the National Propaganda Committee for the improvement and development of milk and cheese consumption, under conditions laid down by this Committee and approved by an Order of the Minister of Agriculture of June 13, 1938 (5).

Stockage. — The dates for placing on the market butters stocked in virtue of the Decree of September 15, 1937 will be fixed by the Minister of Agriculture after consulting a Commission (6).

The Meat Market.

Import Quotas. — The quota of live sheep to be imported during the third quarter of 1938 has been reduced to 5,000 head as compared with 10,000 for the corresponding quarter of 1937. The quota of fresh and chilled mutton is reduced from 1,500 to 500 quintals, while the import of frozen mutton, authorised for the third quarter of 1937, up to 4,000 quintals, is prohibited. The quota of salt meats or meats preserved in brine is reduced from 3,500 quintals for the corresponding quarter of 1937 to 1,750 quintals (7).

Quotas of Moroccan Products for Admission Free of Duty. — The Decree of June 1, 1938 (8) has fixed the quotas of Moroccan products for admission free of duty from June 1, 1938 to May 31, 1939. The quota of live cattle is reduced from 20,000 head

(1) *Journal Officiel*, June 26, 1938. — (2) *J. O.*, July 2, 1938. — (3) *J. O.*, May 21, 1938. — (4) *J. O.*, April 9, 1938. — (5) *J. O.*, July 27, 1938. — (6) *J. O.*, June 29, 1938. — (7) *J. O.*, July 2, 1938. — (8) *Journal Officiel*, June 2, 1938.

in 1937-38 to 18,000 in 1938-39, of live pigs from 33,000 to 25,000 quintals. On the other hand, France allows to the French zone of the Sherifian Empire a quota of 4,000 quintals of beef. The quota of salt meats or meats preserved in brine has been reduced from 2,800 quintals in 1937-38 to 1,500; and that of tallow, lard and lard oils from 750 to 350 quintals.

Freezing. — Provision is made for the encouragement of placing home grown meats in cold storage (1).

Sugar Market.

Application of the International Agreement. — By a Decree of April 20, 1938 (2) the International Agreement signed in London on May 5, 1937 for the regulation of sugar production and marketing has been made applicable in France.

Fixing of Production. — By a Ministerial Order of April 8, 1938 (3) the total of sugar production in France together with sugar imports from the French Colonies has been fixed at 1,080,000 metric tons for the period from October 1, 1938 to September 30, 1939.

Distillation of Sugar Beet. — A Decree-Law of June 17, 1938 (4) permits for a period of 10 years an annual supplementary purchase of 330,000 hl. of beet alcohols by the commercial Alcohol Monopoly. Out of this quota, 130,000 hl. are assigned to certain parts of the devastated areas which have not completely reconstituted their cultivation of sugar beet, and to areas situated outside the zone of the cultivation of sugar beet but important from the point of view of national defence. These quantities will be purchased, in the same way as beet alcohol of the normal quota, at the sugar price parity; whereas 200,000 hl. will be purchased at three fourths only of the price of beet alcohol of the normal quota. These operations will be financed by a share of the new special supertax on petroleum products and by a share of the increase of the customs duty on rice, millet, canary grass and carobs.

Prohibitions for Sanitary Reasons.

Sheep and goats from Algeria, Tunisia and Morocco intended for grazing are allowed to enter France under certain conditions of inspection (5).

II. — MEASURES AFFECTING AGRICULTURAL ECONOMY IN GENERAL

Modifications in the System of Inheritance of Rural Landed Property.

To prevent undue subdivision of land, a Decree of June 17 1938 (6) has modified certain provisions of the Civil Code on the system of inheritance of real estate and in particular of rural property.

(1) *Journal Officiel*, June 15, 1938 and July 2, 1938. — (2) *J. O.*, April 22, 1938. — (3) *J. O.*, April 12, 1938. — (4) *J. O.*, June 26, 1938. — (5) *J. O.*, May 4, 1938. — (6) *J. O.*, June 29, 1938.

Compulsory indivisibility of land is now permitted under certain conditions in respect of farms of a value less than 200,000 francs. This may be extended to implements and live stock, on condition that their total value does not exceed one fourth of the value of the real property constituting the farm. The restitution in kind of real property received by one of the heirs as gift or legacy can no longer be required, if this is not stipulated in the formal provisions of the deed of gift.

The obligation to form lots in equal value of movable and real property, and of other rights, claims or credits, will no longer be imposed in cases where it involves the splitting up of the inheritance and division of the farms.

Subject to certain qualifications the surviving consort and any inheritor who is co-proprietor of a small rural property may have it assigned to himself at the time of the division, with the obligation of making up for the inequality of the lots by payment of a lump sum.

The same Decree-Law foresees certain fiscal privileges in favour of co-heirs when the splitting up of an inheritance or the division of a farm has been avoided.

Non-distrainable Family Property.

By Decree-Law of June 14, 1938 (1) the maximum figure for non-distrainable family property as under the law of July 12, 1909 has been raised to 120,000 francs. The decree prescribes that family property may consist not only of a house, or a house and lands, but also of lands only.

Agricultural Credit.

By a Decree of May 24, 1938 (2) workers covered by social insurance legislation or entitled to civil or military pensions or to allowances from any retirement fund under State management or supervision may apply to the regional agricultural credit banks, for the issue of a "savings book" to facilitate the deferred purchase or improvement of rural property. Such payments which workers make to the regional banks will be transferred to the National Bank of Agricultural Credit which will use them either to purchase State guaranteed bonds good for a period not exceeding 20 years, or in advances to regional co-operative agricultural credit banks for short term loans, for discount operations, or as advances for medium term loans. For this purpose the Government will make an annual contribution to the National Bank of Agricultural Credit.

By a Decree-Law of June 17, 1938 (3) the National Bank of Agricultural Credit and the regional banks of agricultural credit may grant loans for rural equipment to communes or groups of communes.

(1) *Journal Officiel*, June 15, 1938. — (2) *J. O.*, May 25, 1938. — (3) *J. O.*, June 26, 1938.

UNITED KINGDOM

General agricultural conditions in the United Kingdom in the first half of 1938 were characterised by two adverse factors. First, the weather was specially unfavourable; there was in particular a prolonged spring drought, one of the immediate effects of which was a rise in the cost of animal feeding. Second, agricultural prices began to fall.

This fall is associated with a deterioration of the general economic situation in the United Kingdom. Indications of this deterioration are to be seen in the decline in the index of wholesale prices and in the increased number of unemployed. The number of insured workers unemployed, although not increasing, was in the first half of this year considerably greater than in the first half of 1937 when, moreover, the number was decreasing. Industrial activity in the first quarter of 1938, as estimated from figures published by the Board of Trade, although remaining greater — by 1.1 per cent. — than in the first quarter of 1937, was 2.9 per cent. less than in the fourth quarter of that year. The value of the foreign trade of the United Kingdom during the first half of 1938 was less than that for the corresponding period of 1937; imports were £ 14.5 million less, and exports £ 25.7 million less.

Of interest to agriculture is the fact that in spite of this recession the number of insured workers employed increased slightly.

The fall in the general index of wholesale prices began in the summer of 1937 and had until the beginning of 1938 been due to a decrease in the prices of "Industrial Materials and Manufactures", that part of the general index which refers to "Food and Tobacco" having on the contrary risen during the last half of 1937 (1). During the first six months of 1938 this latter movement has, however, been reversed and the Board of Trade's "Food and Tobacco" price index fell from 105.0 in January to 99.4 in June — 5.6 points. During the same period the index for "Industrial Materials and Manufactures" fell by 7.3 points from 109.0 to 101.3.

The decline in agricultural prices is reflected in the Ministry of Agriculture's Index number of the Prices of Agricultural Produce (corresponding months 1911-13 = 100) which fell from 134 in January to 122 in July; the figures for the corresponding months of 1937 were 130 and 131.

The most important individual change in the agricultural markets' situation has been a heavy fall in sheep prices. The Ministry of Agriculture's Index (corresponding months 1911-13 = 100) fell by no less than 36 points during the first seven months of the year and in July was 50 points lower than in July 1937. This fall is exceptional from the point of view of the current market supply situation for the quantity of mutton and lamb imported in the first six months of the year was less than that imported in the corresponding period of 1937, and the home marketings of sheep in the first quarter, when prices were declining rapidly, were less than the average marketings for the first quarter of the years 1935-37. A partial explanation of the fall may be found in the bad position of the skin and wool trades which have been adversely affected by world conditions.

(1) Studies published by the Board of Trade.

Wages have continued to rise; the Minister of Agriculture stated in June that the average rate for adult workers was then 34s 6 ½d. per week, to be compared with 33s. 7 ½d. in December 1937. The cost to farmers of feeding stuffs has tended to decline during the first six months of the year; the Ministry of Agriculture's Index (corresponding months 1911-13 = 100) which stood at 127 in January had fallen to 118 in July. The Index of fertilizer prices remained steady.

Agricultural imports (1) during the first six months of 1938 valued £ 202 million, to be compared with £ 195 million for the first six months of 1937 (2). Thus while, as has already been stated, the total value of all imports during the first six months of 1938 was £ 14 less than the corresponding value for the same period of 1937, the value of agricultural imports was £ 7 million greater. This £ 7 million is to be explained by changes in the value of dairy produce imports, £ 7 million greater, meat imports, £ 3 ½ million greater, and grain and flour imports, £ 3 million smaller; changes of other individual items being of minor importance.

The decrease in the value of grain and flour imports is associated with a very considerable increase in volume; the two most important items of grain imports are wheat and maize; the former was greater by 510,000 cwts., being 77,370,000 cwts., and the latter no less than 5,180,000 cwts. greater, being 29,140,000 cwts. Otherwise there has been a tendency for the value and volume of imports to move in the same direction. Imports of dairy products and total meat imports were both greater in volume; it is moreover interesting to note that the volume of the imports of beef, the prices of which were firm, increased, while that of mutton and lamb, the prices of which were weak, declined.

I. — MEASURES AFFECTING MARKETS AND PRICES

Regulation of imports.

The great importance of the imports of agricultural produce into the United Kingdom attracts special attention to the situation regarding the regulation of these imports. And in recent months there have been two important developments in this situation: the first was the declaration of policy, and the measures taken, by a conference of British Empire Producers held at Sydney in March; the second, the signing in May of an agreement between the United Kingdom and Ireland.

The conference at Sydney of representatives of British Empire agriculturists was concerned with the general agriculture policy of the British Empire with reference to imports of agricultural products into the United Kingdom market. After a week's discussion the Conference unanimously passed a resolution which, in the first place, affirmed the following three principles: In the local market the local producer is en-

(1) The importance of agricultural imports in the general agricultural situation in the United Kingdom is shown by the following approximate figures: Value of agricultural output in the United Kingdom in 1937 £ 220 million; value of agricultural imports, excluding items included under the heads of "Beverages" and "Other Food", £ 300 million; value of all items included under the head of "Food and Drink", £ 400 million.

(2) These are the values of the items included under the head of "Food and Drink".

titled to first place, other Empire producers to second place, and foreign producers to third place (1). Dominion supplies of primary products to the United Kingdom market should be expanded so far as is economically possible. The marketing of Empire primary products should be orderly, so that continuity and regularity of supplies may be maintained and instability of price levels avoided.

In the second place the resolution recommended the establishment of voluntary commodity Councils, financed and controlled by Empire producers in co-operation; each Council to deal with one commodity or class of commodities. The Councils would advise their constituent organisations with reference to the flow of supplies to the United Kingdom market; it is hoped that this would be a means of avoiding restrictive action under statute by the United Kingdom Government. They would also be concerned with the study of markets and would seek to secure the expansion of existing and the creation of new markets for Empire primary products.

The Conference put this recommendation into immediate effect by adopting resolutions providing for the establishment of an Empire Mutton and Lamb Council, and of Pig Meats, and Dairy Industry Commodity Councils.

In a debate in the House of Commons in London in July the Minister of Agriculture approved the resolution, but pointed out that the Government reserved the right to introduce bills which would enable it to restrict supply. It was to be hoped however, he said, that the operations of the Commodity Councils would make government action unnecessary.

It is to be noted that the recommended regulation of supplies to the United Kingdom market is similar to that already being effected by the International Beef Conference and the Empire Beef Council, to which special reference was made in the last issue of this Chronicle (2).

Such control of the market by "the collective action on the part of Empire producers' organisations in co-operation with corresponding bodies in other countries in respect of particular commodities" was also recommended in the "Memorandum of Conclusions" (3) issued at the conclusion of the Anglo-Australian trade discussions which were held this summer.

The agreement between the United Kingdom, and Ireland affects a relatively small part of the total agricultural imports into the United Kingdom, for although Irish imports to the United Kingdom consist predominantly of agricultural produce the total of these imports in 1937 was approximately £20 million, about 7 per cent. of the total of purely agricultural imports into the United Kingdom. Any change in this amount is none the less capable of having considerable effects on agricultural markets.

Importance is therefore to be attached to this agreement, whose effect is to restore to Irish agricultural products that freedom of entry into the United Kingdom which existed before special import duties were imposed in 1937. These duties were introduced with the object of collecting revenue to compensate for the stopping of payments to the United Kingdom of amounts due on account of Irish Land Annuities; to countervail these duties the Irish government introduced export bounties. Now both the special import duties and the related export bounties are abolished.

(1) This is the order of preference established at the Ottawa Conference of 1932.

(2) See the April 1938 number of this Bulletin.

(3) "Memorandum of Conclusions...", Cmd. 5805, His Majesty's Stationery Office, London.

A quantitative control of trade in agricultural products is provided for; this has the object of promoting orderly marketing. This provision is, it will be seen, in line with the policy formulated by the conference referred to above and already being carried out by the International Beef Conference. Ireland will in future be a full member of the Beef Conference. The Potato (Import Regulation) Order made in the United Kingdom in 1934, which provides for the quantitative control of potato imports, will remain in force.

Special reference is made in the agreement to egg and poultry imports, the quantity of which is to be controlled, even by means of customs duties, should the two Governments concerned agree that this is the most convenient means to the end in view. The particular importance attached to this item is to be accounted for by the instability of the egg and poultry market in the United Kingdom.

Agricultural imports into Ireland from the United Kingdom, usually comparatively small, are to be free of duty. Of particular importance is the freeing from duty of imports of bacon and hams and live pigs.

Store cattle are an important item of Irish exports to the United Kingdom, and the figures for this trade in the first six months of 1938 show an increase over that for the same period of 1937, this increase being due to a very much larger figure for the month of June 1938 than that for June 1937. It is, however, yet too early to estimate the effects of the new agreement.

The Bacon Industry Act, 1938.

The regulation of home marketing and production continues on unchanged general lines and the only important new Government measure, the Bacon Industry Act, passed in July, has as its object not the putting into effect of a completely new policy but rather the making more effective of a policy and schemes previously established.

Marketing schemes for pigs and for bacon were set up in September 1933. The Pigs Marketing Scheme established a contract system for the marketing of bacon pigs and the Pigs Marketing Board, elected by registered producers, determined the terms on which bacon pigs could be sold. The Bacon Marketing Scheme established a system of regulation of the sale of bacon, registered curers being prevented from selling bacon from pigs produced in Great Britain other than pigs bought from registered producers; the Bacon Marketing Board, elected by registered producers, carried out this scheme; in 1937 it started to allot individual sale quotas to registered curers (1).

In 1935 the control of the pigs and bacon industry was extended by the setting up of the Bacon Development Board, consisting of three independent members appointed by the Government and eight members elected by the two Marketing Boards, to control new bacon factory construction and extension, to regulate the conditions of operation of bacon factories, to formulate a common policy for the industry, to carry out research and education, and if necessary, to act as arbitrator between the two Marketing Boards. The Development Board licensed bacon factories and it followed a policy of restricting severely the construction or extension of bacon factories.

The whole of this regulation was based on the control of pig production by the contract system. Thus when at the end of 1936 contracts for the coming season

(1) These did not refer to bacon from imported carcasses.

were declared void (1) and free marketing of pigs generally re-established, the whole problem of the regulation of the pig and bacon industry was brought under immediate consideration. This led to the passing in July of a new act.

The main objects of this Act are the re-establishment of a contract system for the sale of pigs, and the increasing of the efficiency of bacon production; to these ends it provides for the fixing of Government guaranteed prices.

The Pigs Marketing Board and the Bacon Marketing Board remain unchanged; but the Bacon Development Board is reconstituted, the number of Government appointed members is to be 5 instead of 3 in the earlier Board, the number of other members remains as before, four appointed by the Pigs Marketing Board and four, by the Bacon Marketing Board.

The Bacon Development Board is a fundamental organ of the new scheme; it is to direct policy, and the Marketing Boards are to have mainly administrative duties; should it be wound up, the two Marketing Boards and the Act itself cease to exist.

The Contract System. — The Act aims at bringing all sales of pigs and bacon—except bacon from imported carcasses—within the contract system. Penalties may be imposed by the Boards on sales by unregistered pig producers or bacon curers—except small curers having special exemption—; and registered producers and curers may buy and sell only under yearly contracts.

This contract system is to be a means not only of establishing prices for a yearly period but also of allocating pig supplies to curers. The Act gives the Bacon Marketing Board power to determine the description and quantity of bacon produced in any factory; and the contracts, the terms of which are to be fixed by the Pigs Marketing Board in consultation with the Bacon Marketing Board (2), may allot a producer's supply either to a curer nominated by him or to another curer. The Boards will generally seek to allot a producer's supply to the curer of his choice and provision is made in the Act that for every pig allotted to a different curer the producers and the curer selected by the producer will each receive a compensation bonus of 6d. Producers may leave the choice of a curer entirely to the Boards; such a contract, an Open Offer Contract, will give the producer the right to a special bonus to be determined when the terms of the contract are determined (3).

This contract system is also to provide a means of controlling the size of the total supply of pigs to bacon curers. The Act provides that the Bacon Development Board shall determine the maximum number of pigs which may be put under contracts during a contract period; the Act itself, however, fixes the maxima for the first three contract years after the passing of the Act; these are to be 2,100,000; 2,400,000, and 2,500,000 respectively.

This provision for a gradual increase in the total possible supply of bacon pigs is related to the provisions for increasing the efficiency of the bacon industry.

(1) See the Chronicle for January 1938, p. 60-61.

(2) If the terms are not fixed within 10 weeks before the beginning of an established contract period the Bacon Development Board is to do this within those 10 weeks.

(3) There are to be five kinds of contract; Nominated Buyer Contract, Open Offer Contract, Group Contract, Transferred Pig Contract, Transferred Pig (Producer-Curer) Contract (The latter is for the case in which a producer-curer wished himself to cure the pigs he produced which the Board nevertheless allots to another curer).

Bacon Factory Rationalisation. — The Bacon Development Board is to have powers, similar to those of its predecessor, to control the construction or extension of bacon factories and to impose standards of hygiene and efficiency; this it will do by means of a licensing system.

The increase of the efficiency of bacon industry is a fundamental principle of the Act. It is provided that the Bacon Marketing Board shall within six months prepare a rationalisation scheme having the object of extending the scope and increasing the efficiency of bacon production; and other provisions of the Act, for example the right of the Marketing Boards to allocate pigs to other curers than those nominated by the producer, are conditional upon the coming into force of such a scheme.

That an increase in the efficiency of bacon production is a fundamental aim of the Act is seen from the fact that such benefits as the Act grants to curers are to be on a declining scale for a period of three years. The restriction on the total supply of pigs for bacon production, referred to above, is to be more severe in the first year of the operation of the Act than in the two subsequent years; and the price guaranteed to the curer during the same period declines from year to year.

Guarantee of Price. — The Act provides that the bacon curer is to be guaranteed by the Government the following prices for his output: 94s. 9d. per hundredweight in the first contract year, 93s. 9d. in the second, and 91s. 9d. in the third.

The procedure for this purpose is to be the fixing of "ascertained selling prices", i. e., of the actual price received by the bacon curer for his bacon; if this ascertained price is below the guaranteed price the Government is to pay the curer a subsidy equal to the deficiency, if it is above, the curer is to pay the Government a drawback equal to the excess.

The curer will also receive a subsidy from the Government when the price of the standard ration of pig is more than 8s. 6d. and will have to pay a drawback when it is below this figure. This provision does not, however, affect the curer's position for it is also provided that the contract price paid by the curer to the pig producer shall be increased by the amount of this subsidy or decreased by the amount of the drawback.

This latter provision thus adjusts the price received by the pig-producer, in accordance with changes in the cost of feeding stuffs. For this purpose the Minister of Agriculture fixes for each month a price per hundredweight of the standard feeding ration (1). The contract price per score is then increased or reduced by a proportion of the amount by which the standard price per hundredweight of feeding stuff exceeds or falls short of 8s. 6d., this proportion being equal to the proportion of a hundredweight of feeding stuffs required to produce one score of pigs (2). Thus it is intended that the change in the contract price shall correspond exactly to the change in the producer's feeding stuff costs.

The Act provides that the pig producer shall receive during the first year after the coming into force of the Act, an average monthly basic contract price of 12s. 6d. per score, during the second year 12s. 5d. and during the third 12s. 3d. per score.

Thus the producer will receive a decreasing price per score on an increase possible maximum output sold under contract. The gross return represented by the product

(1) The composition of this ration is fixed by him before the beginning of each contract year.

(2) The proportion is 103-120ths.

of price per score and maximum output however shows a considerable increase over the three years.

The contract prices established by the new Act are considerably more favourable to the producer than those he obtained under the two last effective contract years, 1935 and 1936. The yearly averages of the monthly contract prices in those two years were 11s. 1 ½d. and 11s. 5d. respectively. Had the new arrangements been in force the averages would have been 12s. 3 ½d. and 12s. 1d. respectively. It will be seen that the difference is greater in 1935 than in 1936; this is due to the fact that feeding costs were higher in 1935 than they were in 1936, the new arrangements showing a greater improvement over the old when the price of the feeding ration is high than they do when this price is low. During the first nine months of the present year this price has been considerably greater than the basic price of 8s. 6d.; during the months January to May inclusive it ranged between 10s. 2d. and 10s. 4d., but from 9s. 11d. in June it fell to 9s. 4d. in September.

The Bacon Marketing Board has already outlined a basis for a rationalisation scheme which envisages firstly an allocation between groups of curers of the right to participate in any expansion of the supply of available pigs, secondly a gradual improvement and greater measure of uniformity in respect of efficiency standards, and thirdly a reduction in the number of curing units by voluntary purchase or compulsory acquisition with compensation for which funds would be raised by a rationalisation levy on the industry.

Wheat producers in the United Kingdom have since the passing of the Wheat Act 1932 been guaranteed a given price for their product. This guarantee has involved the payment of a subsidy to wheat producers in each cereal year since the coming into force of the Act, and the cereal year just concluded is no exception.

The price guaranteed by the Act is 10s. per hundredweight. The Act provides that the Minister of Agriculture shall at the end of each cereal-year declare what has been the actual sale price—this is known as the "ascertained price"—and if this is less than 10s. wheat growers are to receive a subsidy equal to the difference between these two prices, on each hundredweight they sold. The intention of the Act was that subsidies payable under the Act should not involve any "charge upon public funds". Thus it was provided that a Wheat Commission should be set up which should obtain funds for the payment of such subsidies as might become due, by imposing "quota payments" on every miller and every importer of foreign flour. The Wheat Commission fixes the rate of these payments from time to time varying them in accordance with its forecasts of the size of the subsidy payments that it will be liable to make, in accordance, therefore, with the market price of wheat. In April 1937, an improvement in the price of wheat led the Minister of Agriculture to suspend the quota payments altogether; in September 1937 they were re-imposed, the rate being fixed at 2.4d. per cwt. and since then the rate has been continuously increased till at present it is 16.8d. per hundredweight (1), this increase reflecting the weakness of wheat prices.

(1) See previous issues of the Chronicle. Wheat (Quota Payment) No. 3 Order 1938, which came into force on April 10, 1938 fixed the rate at 9.6d. per cwt. and No. 4 Order which came into force on August 11, 1938 at 16.8d.

The Minister of Agriculture limits each year the total quantity of wheat on which a subsidy may be paid, to an amount established by him as the "Anticipated Supply" for the particular year (1). If the actual sales exceed the anticipated supply each grower receives a proportion of the subsidy on the anticipated supply equal to the proportion of the total sales which his sales represent. Otherwise he receives the full rate of subsidy on each hundredweight he sells.

The payments are made to growers registered with the Wheat Commission and are on the basis of sales certificates lodged with the Commission.

In each year since the coming into force of the Act the "ascertained average price" of wheat has been less than 10s. per hundredweight and the grower therefore received a subsidy each year. For the cereal year 1937-38 it has been declared by the Minister of Agriculture to have been 8s. 4.39d. per hundredweight. Up to the year 1936-37 the sales by registered growers had always exceeded the "anticipated supply", and the grower did not receive a full subsidy on each hundredweight. In 1936-37 for the first time the actual sales were less than the anticipated supply and the same is the case this year, 1937-38; in the last two years therefore the grower has had a return on all his certified sales of 10s. (2) per hundredweight, that is, more than in previous years. The change in the position in the last two years is due to a reduction in actual sales.

The change in the wheat growers position in recent years is shown in the following table:—

Wheat Supply and Subsidy.

	1937-38	1936-37	1935-36	1934-35	1933-34	1932-33
"Anticipated Supply", hundred weight . . .	25,000,000	25,750,000	30,400,000	32,000,000	29,000,000	19,800,000
Actual sales by regis- tered growers, hun- dredweight	24,550,000	23,713,000	33,650,000	35,720,000	29,570,000	20,400,000
Ascertained average sale price per hundred- weight	8s. 4.39d.	8s. 8.92d.	5s. 9.23d.	4s. 10.87d.	4s. 7.63d.	5s. 4.46d.
Deficiency payment made by Wheat Com- mission, per hundred- weight (1)	1s. 7d.	1s. 1.53d.	3s. 4.26d.	3s. 9.55d.	4s. 10.30d.	4s. 5.25d.
Average Return to grow- ers, per hundredweight	9s. 11.32d.	9s. 10.45d.	9s. 1.49d.	8s. 8.42d.	9s. 5.93d.	9s. 9.71d.
Total payment to grow- ers by Wheat Com- mission, pounds ster- ling (2)	1,943,000	1,338,000	5,644,000	6,814,000	7,178,500	4,511,000
Product of average re- turn and actual sales, pounds sterling . . .	12,205,442	11,703,354	16,720,038	15,628,195	14,037,126	10,005,350

(1) On an amount not exceeding the "anticipated supply". — (2) Approximate.

(1) Which by the Act, as amended, may not exceed 36,000,000 cwts.

(2) Less a small sum retained by the Wheat Commission to cover its administrative expenses.

A similar price guarantee for oats and barley growers was provided by the Agriculture Act, 1937. There are however important differences between the methods used in this case and that of the Wheat Act. Any subsidy payable to oats and barley growers is to be not on the sale of crops, as in the case of wheat, but on an acreage basis; and the funds for such a subsidy are to be provided by the Government.

The price guaranteed in this case is 8s. per hundredweight of oats, and should the average price of home-grown oats for the seven months September to March fall below this by more than 5d. a subsidy is payable at the rate of either six times the difference between the actual price and 8s., or £1 per acre, whichever is less. The same subsidy is payable to barley growers irrespective of the price of barley.

For the seven months ending March 31, 1938 the average price of oats was declared to be 7s. 7d. per hundredweight and consequently a subsidy of 2s. 6d. per acre is payable. The combined qualifying acreage in the whole of the United Kingdom (1) was approximately 1,300,000 acres, and the total subsidy therefore will amount to approximately £160,000.

II. — MEASURES AFFECTING AGRICULTURAL ECONOMY IN GENERAL

The policy of giving direct Government assistance for agriculture, introduced in the United Kingdom in 1931, has involved a series of individual measures granting assistance in various forms to the producers particular products and providing for the regulation of particular markets. There had until 1937 been no important new general measures; in that year, however the position was changed by the passing of the Agriculture Act, 1937; two of the main provisions of that Act involved the making of grants for land drainage and for the improvement of land fertility, and a third aimed at the encouragement of the eradication of animal diseases.

This new phase of policy has now been carried a stage further by the preparation by the Minister of Agriculture in accordance with the terms of the 1937 Act, of a scheme for the elimination of bovine tuberculosis.

The basis of this scheme, which incorporates, with certain modifications, and extends, the Schemes previously in operation in England and Wales, and Scotland, respectively, is the payment of a bonus to the owner of a herd which has been shown by an official test to be free from tuberculosis reactors.

A herd which passes the official test is placed on the Register of Attested Herds and the owner receives a Certificate of Attestation, and is then entitled to a bonus. Until the coming into force of the new scheme only registered milk producers were eligible for a bonus, which was moreover paid as a rate per gallon only on milk sold for "liquid consumption". Under the new scheme, milk for the manufacture of farm cheese also becomes eligible, provided that the sale of the cheese is approved for a payment by a Milk Marketing Board under a scheme or agreement with farmhouse cheese-makers. The rate of the milk bonus remains that paid by the Milk Marketing Boards immediately previous to the coming into force of the new scheme, *i. e.* 1d. per gallon.

(1) This provision of the Act applies to the whole of the United Kingdom.

The new scheme introduces moreover an alternative bonus which is not related to milk production and which is payable at a rate per head of animals; the rate is to be 10s. per head at half-yearly intervals and the bonus is limited to six half-yearly payments.

Great progress has been made under the scheme in recent months; in the summer of 1937 there were about 800 Attested Herds in Great Britain, on December 31, 1937 there were 1452, and on 1 July 1938 there were over 2000 other herds awaiting official tests or undergoing assisted tests. On December 31, 1937 the herds under the scheme comprised 87,500 cattle; this represents just over $1\frac{1}{4}$ per cent. of the total cattle population and about 4 per cent. of the population of cows and heifers in milk.

The Attested Herds Scheme is, it should be noted, but one of the measures in force at present having the purpose of improving the quality of milk. Two other incentives are provided by bonuses paid by the Marketing Boards to "accredited" producers and to producers of "Tuberculin Tested" milk.

These two bonuses are based on the quality designations set up by the Milk (Special Designations) Order, 1923. This established the following five grade designations, and milk described as belonging to one or other of the grades may be sold only under licences granted by the Minister of Health or by a local authority. "Certified" Milk and "Grade A (Tuberculin Tested)" Milk licences are granted subject to the tuberculin-testing and clinical examination of the herd at intervals of six months, and the removal of all reactors; "Grade A" licence requires the herd to have been only clinically examined once every six months. The milk sold under these licences has also to be tuberculin tested before being sold, Certified Milk having to reach a higher standard in this respect than the milk of the other two grades.

There are then "Grade A pasteurised" and "Pasteurised" licences, for pasteurised milk, the first grade requiring all lower bacteria content than does the latter.

The producer of "Grade A" milk may since 1935 have his name placed on a roll of "accredited" producers, and is then entitled to a bonus from the Milk Marketing Board.

In July 1937 the producers of "Certified" and "Grade A (Tuberculin Tested)" Milk, the so-called "T. T." producers, were brought for the first time under the Milk Marketing Schemes, since when they receive a bonus from the Boards in addition to a higher price for their milk.

The standards of the "T. T." and the "Attested Herds" schemes differ in certain requirements concerning testing and re-testing of the herd, and in this respect the Attested Herds Scheme is slightly more severe; but the main difference between the schemes is that while milk sold under "T. T.", licences has before sale to pass a test of its content of bacteria, milk sold under the Attested Herds Scheme is subject to no such test.

A milk producer may receive two bonuses, one as either a "T. T." producer or an "accredited" producer and one as the owner of an attested herd.

The encouragement of the improvement of land fertility has been carried out by the putting into operation of a land fertility scheme providing for government contributions of fifty per cent. of the cost of lime and twenty-five per cent. of the cost of basic slag. An indication of the effect of this scheme is to be seen in the fact that from the beginning of the scheme in September 1937 to the end of the fertiliser year in May 1938, 409,000 tons of basic slag ranked for payment, whereas 240,000 tons were used in the whole of the preceding fertilizer year. At the end of June a total

of £ 800,000 had been paid by the Government as contributions in respect of 429,000 tons of basic slag, and £ 340,000 in respect of 1,369,000 tons of lime.

Land drainage schemes approved between October 1937 and April 1938 for grants under the 1937 Act are estimated to cost about £ 194,000 and grants authorised amount to approximately £ 80,000.

IRELAND

Of the general factors affecting agriculture in Ireland one of the most important is the foreign trade position. Nearly half of the total annual income from agriculture is derived from agricultural products exported, and of these exports approximately ninety per cent. goes to the United Kingdom.

In reviewing the general conditions of Irish agriculture in the first half of 1938 mention must be made in the first place therefore of the signing in May by Ireland and the United Kingdom of an Agreement which frees the trade between the two countries of restrictions to which it has been subject since 1932.

Against this favourable factor must be set a tendency for the general economic situation to deteriorate. There were more unemployed during the first six months of this year than there were during the same period last year. The total values of both imports and exports during the first six months of 1938 were less than the corresponding values in 1937.

Agricultural prices continue to rise however; the Index of Agricultural Prices (1911-13 = 100) published by the Director of Statistics at the Department of Industry and Commerce shows for June a figure 6.6 points above that for June 1937. The figures for January, April and June were 104.1, 108.1 and 114.5 respectively, and those for the same months last year 92.1, 103.6 and 107.9.

Cattle and pigs, and butter and eggs are individually of special importance in Ireland; together they account for a little more than half the total value of the country's agricultural output. In recent months the prices of these products have been good. Cattle prices in particular are considerably better than they were last year, the rise that has been taking place in recent years having continued. The prices of bacon pigs also continue to increase.

Potatoes prices have, on the other hand, been falling recently, the average monthly prices in each of the first four months of the year being lower than those in the corresponding months of the last three years. The potato crop has produced about 7 per cent. of the total value of agricultural output in recent years.

The costs of fertilizers and feeding stuffs are higher at present than they were last year; fertilizer prices rose on the average about 4.5 per cent. and feeding stuffs prices generally by 7-10 per cent. Wages rates have also tended to increase.

Total exports during the first six months of 1938 had a value of a little over £ 10 million; this is to be compared with a little more than £ 10 ½ million in the first six months of 1937. Of this value nearly half is derived from cattle exports, which had an approximate value of £ 4.8 million in the first half of 1938 and £ 4.6 million the first half of 1937. Cattle exports in June were considerably greater than in June 1937, and this excess more than offset a deficiency in other months. It is too early, however, to estimate even the immediate net results in this field of the new agreement with the United Kingdom.

I. — MEASURES AFFECTING MARKETS AND PRICES

Regulation of Exports and Imports.

Measures taken by the Government in recent months have been concerned in the first place with the putting into effect of the trade agreement with the United Kingdom (1) which came into force on May 19.

The Agricultural Products (Regulation of Imports) Act, 1938 passed in May allows the Minister of Agriculture to make orders prohibiting imports save under licence, and is concerned with the putting into force of that part of the agreement which provides for the quantitative control of imports. Action taken under this Act will be concerned particularly with imports from the United Kingdom of bacon and ham and live pigs, and also of grass seed and the pulp or juice from certain fruits, all of which imports are now free of duty.

The Agricultural Produce (Cereals) Act, 1938, also passed in May, consolidates, with amendments, the provisions of the *Agricultural Produce (Cereals) Acts, 1933 to 1937*, relating to the import of flour, wheaten meal, wheaten preparations, wheat, maize and certain feeding stuffs, and to the export of certain feeding stuffs. Orders made under it enable wheat offals and wheaten preparations, manufactured in the United Kingdom, to be imported without restriction.

The Agreement provides that the Irish Government shall no longer give special assistance to exports to the United Kingdom.

Export bounties and subsidies are in fact no longer payable except on eggs, seed potatoes (2), and dairy products. Dairy products receive bounties and subsidies related to the operation of the *Dairy Produce (Price Stabilisation) Act 1935* (3); creamery butter is to receive such a rate of subsidy as, together with the bounty paid under the Act, will bring the net value of creamery butter exported up to a guaranteed figure to be fixed by the Minister for Agriculture; other butter is to receive a subsidy also at this rate except in the case where a special rate is sanctioned by the Minister; the export bounty on other milk products is to be such that the receipts of producers shall be approximately equal, on a milk basis, to the receipts they would have obtained if the milk had been used for the production of an equivalent amount of creamery butter.

At the end of 1937 the export bounties on various dairy products, paid in accordance with the terms of the *Dairy Produce (Price Stabilisation) Act, 1935*, were suspended

(1) A brief description of this Agreement is given in the Chronicle for the United Kingdom appearing in this Bulletin. See p. 433.

(2) The bounty on seed potatoes exported to any country other than the United Kingdom or the U. S. A. is 17s. 6d. per ton; that on eggs 9d. per great hundred for pullet grade and 1s. per great hundred for other grades, except eggs not in shell, for which it is 5s. per cwt. A bounty of 30s. per head was paid on fat cattle exported to the United Kingdom after the coming into force of the Agreement but this ceased on June 15.

(3) See p. 443.

by reason of improved market conditions. Now by orders coming into force in May bounties have been re-established for cheese and creamery butter exports (1).

An estimate of the cost of bounties and subsidies in Ireland in the year 1938-39 was recently published by the Department of Finance; this gives a total cost of £ 825,000. The estimate for 1937-38 was £ 2,242,010. The figures for the most important agricultural items – which account for over ninety per cent. of the total cost – are as follows:

	1938-39	1937-38
Dairy produce	£ 380,000	£ 629,210
Pigs and pig products	£ 100,000	£ 600,000
Eggs and poultry	£ 283,000	£ 650,000
Fat cattle	£ 15,000	£ 37,000

Milk and Dairy Produce Market.

A second important subject of Government action in recent months is the quality of milk. Important new regulations, made under the Milk and Dairies Act, 1935, have the object of improving the quality of milk by means of a system of grading, and provide an incentive to the elimination of tuberculosis from dairy herds.

These regulations which come into force on January 1, 1939 establish special official designations for milk, which can be used only by a producer holding a relevant licence issued by government authorities. The special designations are to be "Highest Grade", "Standard" and "Pasteurised". A producer not holding a licence for one or other of these grades must sell his milk with one of the following designations: "Milk", "New Milk", "Fresh Milk"; no licence is required in this case but the producer must comply with the terms of the 1935 Act and the regulations made in accordance with it. Licences will be issued to the milk producer in the case of "Highest" and "Standard" grades and to the pasteuriser in respect of "Pasteurised" grade. Further, bottlers' and dealers' licences are to be issued in respect of the first two of these grades, authorising bottling and sale, respectively, on approved premises. It is to be an offence to carry on without a licence any activity in respect of which licences are issued.

The conditions attaching to the use of the designations are, in brief, to be the following:

"Highest Grade Milk" is a designation which is to be used only by a producer who shall have satisfied the government authorities that his herd is free from tuberculosis or other dangerous diseases likely to affect milk; the producer will have to furnish regularly certificates of chemical examinations the cost of which he will have to pay. The milk supplied under this designation is to have a butter-fat content

(1) The rate for cheese (raw or processed) is 5s. per cwt.; that for creamery butter is 4s. per cwt. on export of butter approved by the Minister in accordance with the terms of the 1935 Act, and 1s. per cwt. on other creamery butter.

of at least 3.5 per cent. (the legal limit for ordinary milk is 3 per cent.). This grade may be considered as taking the place of the former T. T. (Certified) Grade.

"Standard Grade" is to be used for milk produced in accordance with regulations similar to, but slightly less strict than, those for "Highest Grade". Regular chemical examinations of the herds are to be made and the butter-fat content of the milk must be also 3.5 per cent.

"Pasteurised" milk is to be produced under regulations providing for treatment of the milk by the "holding system", which requires the milk to be heated to between 145 and 150 degrees Fahrenheit, to be held at this temperature for half an hour and then cooled to 50 degrees F. For sale under this title milk, when tested by sample, must not contain more than 100,000 bacteria per cubic centimetre; the test is to be by the methylene blue process.

The Milk (Regulation of Supply and Price) Act, 1936, which gives the Minister for Agriculture power to fix, on the recommendation of milk boards representing producers and distributors set up under the Act, minimum wholesale prices for any of the districts into which the country is divided for this purpose, remains in operation and the Minister has made orders fixing such prices in respect of the Dublin, Cork, and Leinster districts.

Changes have been made recently in the arrangements made under the *Dairy Produce (Price Stabilisation) Act, 1935* which provides for a bounty to be paid on dairy products and for the stabilisation of the prices of dairy products, the funds for these purposes to come from a levy on these products.

The rise in the price of dairy products in the most important export market, the United Kingdom, led to a reduction of both bounties and levies during 1937, and finally in October and November of that year the bounties were suspended. The levies on creamery and non-creamery butter were also suspended.

In May and June of this year new bounties and levies were introduced. In respect of *creamery butter*, a levy of 6s. per cwt. was established by a *Levy Order* coming into force on May 1, and a *Bounty Order* coming into force on the same date provided for a bounty of 10s. per cwt. on creamery butter "delivered on sale in Eire and on which a levy at the appropriate rate has been paid", of 4s. per cwt. on "approved" creamery butter exported and of 1s. per cwt. on creamery butter which is not approved within the rules for marketing made under the Act and which is exported. A *Cheese (Levy) Order*, which came into force on June 1, provides for a levy of 5s. per cwt. on raw cheese, other than raw cheese manufactured from cream on which the appropriate levy was paid, and a levy of 7s. per cwt. on processed cheese. A *bounty order*, which came into force on May 19, established a bounty of 5s. per cwt. on cheese, both raw and processed.

It was announced in April that the Government had decided to guarantee to creameries on their total butter sales, irrespective of the price obtained on the export market, a return of 130s. per cwt. on production during the period May 1, to November 30, 1938 and of 136s. per cwt. on production during the period December 1, 1938 to March 31, 1939. Earlier in April the Government had, after representations by Co-operative creameries, made a temporary arrangement to guarantee creameries a return of 129s. per cwt. This involved an Exchequer payment of 11s. per cwt. on creamery butter produced and sold during April and a similar outlay on other items of dairy produce. The guaranteed price previously established was 118s.

To give effect to this new decision it was necessary to raise the price of creamery butter on the home market. For this purpose the Minister for Agriculture used his powers under the 1935 Act, entitling him to fix maximum net wholesale price of any

specified class of butter and a minimum price for creamery butter; in April he made a *Creamery Butter (Minimum Price) Order* fixing the price at £6.18s. per cwt. for consignments of not less than 20 cwts. and at £7.2s. per cwt. for smaller consignments. This Order came into force on May 1.

Pigs and Bacon Market.

The Pigs Marketing Board and the Bacon Marketing Board set up under the *Pigs and Bacon Acts, 1935-37*, which have as their primary duty the regulation of supplies and the control of pigs in order to prevent undue fluctuations and to assure profits to the pig farming and bacon industries, have recently been concerned particularly with the encouragement of pig production and the improvement of the quality of the bacon pig. Their policy was set out in a statement made in February. It involves in the first place the stimulation of production and in the second place the encouragement of the production of that type of pig considered most suitable for first-class bacon, that is, a light lean pig having little shoulder fat.

The first part of this policy is to be implemented by the Bacon Marketing Board's granting to producers a large number of sows on very advantageous terms; the second part, by means of the price and grading regulations of the Pigs Marketing Board.

The *Pigs Marketing Board* has power to fix, and regularly fixes, two prices: an "appointed price" which is an actual price for pigs and carcasses of pigs sold to factory or otherwise, and a "hypothetical price", which is a price that the Board considers "would, under normal conditions, be the proper price thereof". Should the hypothetical exceed the appointed price each licensee or registered minor curer has to pay to the Board a levy calculated on the basis of the price difference. The money so received by the Board is used to make payments to licensees or registered minor curers.

For these purposes and in accordance with the terms of the Act, the Pigs Marketing Board established classes and grades of pigs and pig carcasses. The classes are defined by maximum and minimum weight, and the grades, by the depth of fat on back, shoulder, and loin. Separate classes exist for non-factory purchased pigs, non-factory purchased carcasses, and factory purchased carcasses respectively; the grades however refer only to the last of the three heads. So far this year the Board has made two *classification orders* (1). The most important change introduced by the first order was the introduction of a bonus grade for Class I carcasses of factory purchased pigs: this new grade has less depth of fat on the shoulder than other grades. The second order increased certain of the minimum weights.

The *appointed prices* fixed by the three orders issued during the first half of this year show increases in the higher grades and classes, both absolute and relative to lower classes. The price for the new bonus grade of Class I of factory purchased carcasses was fixed by *Order No. 1* coming into force on February 7, at 77s. per cwt.; *Order No 2* coming into force on March 28, fixed it at 79s; and *Order No 3* coming into force on May 9, at 81s. Order No 3 established a list of prices for factory purchases which shows an increase of 2s. per cwt. for each class and group.

(1) The first came into force on February 7, and the second on March 27.

"Hypothetical" prices were on the other hand so fixed as to show a decline over the first six months. This tendency was however reserved by the last two Orders issued. Order No 9, referring to a period beginning July 1, established a list of prices in general higher than those previously in force, and a subsequent Order No 10, relating to a period beginning August 1, established prices each of which is 2s. higher than those fixed by Order 9.

As the appointed price has recently been lower than the hypothetical price, the Pigs Marketing Board has made an order imposing a *levy on licence holders*. This levy is to be at the rate of 4d. for every carcass used for the production of bacon during the half-year beginning on July 1, 1938. This is the same rate as that fixed by the Levy Regulations (No. 1) 1937 for the six months beginning on January 1, 1938.

The principal function of the *Bacon Marketing Board* is to control the quantity of bacon produced, of sales on the home market, and of exports. For this purpose the Board issues production orders, home-sale orders, and orders establishing quotas for the export of live pigs, pig carcasses and bacon. The *production and home-sale orders* issued during the first six months of this year and covering the six months period February 1 to July 31, provide for weights of production and of home sales somewhat smaller than those fixed for the same period last year. The *export quota* for the first four months of the year (1) are the same as for the same period of 1937 apart from an increase of 500 cwts. in the bacon quota (2).

Cereal-growing in Ireland is encouraged by the *Agricultural Produce (Cereals) Acts, 1933-35*.

These Acts provide in the first place that each mill shall each year mill home-grown wheat of an amount equal to a certain percentage of the total quota allotted to the mill. This percentage for the year 1937-38 was fixed by the Minister for Agriculture at 40, but he later reduced the figure to 25 and then 24. He has now made an order fixing the percentage for the cereal year 1938-39 at 35. The percentages so fixed are intended to ensure that all wheat harvested in the years to which they respectively relate shall be absorbed by the mills, a greater harvest being thus associated with a higher percentage.

A second provision is that all maize meal mixture (3) shall contain a certain percentage by weight of home-grown cereals. This percentage was in April 1937 reduced from previous higher figures to 16 $\frac{2}{3}$.

The Minister for Agriculture has now reduced the percentage to 10, by an Order coming into force on August 1. For maize-millers who use oat-kernels as the only home-grown grain in the manufacture of the mixture, the percentage has always been less than for other millers, and is now fixed at 7 $\frac{1}{2}$ per cent.

Another provision of the Act requires that each holder of a milling licence in respect of a licensed mill for which the quota for a year exceeds a certain amount shall be required to provide storage of a given capacity and a drying plant capable of operating at a given rate. For the cereal year 1938-39 the Minister for Agriculture has, with the agreement of the Minister for Industry and Commerce, fixed for

(1) Figures for the whole of the first half of the year are not to hand.

(2) The amounts fixed were: bacon 162,492 cwts.; live pigs, 7076 head; pig carcasses, 2000 cwts.

(3) The figures have not come to hand at the time of going to press.

each mill the storage capacity at 60 per cent. of the quota of mill concerned, and the drying rate at $1\frac{1}{2}$ tons per day of 24 hrs. in respect of every hundred tons of the home-grown wheat quota of the mill. The storage capacity fixed the year 1937-38 was 54 per cent.

The 1935 Act also provides that the Minister for Agriculture may make an order requiring that a certain percentage of the home-grown wheat quotas of the mills shall be purchased and taken into store before the end of each month. On June 20, 1938 the Minister made such an order for the year 1938-39 (1).

Bread prices in Ireland are limited by a statutory maximum retail prices fixed from time to time in accordance with the *Bread (Regulation of Prices) Act, 1936*. For this purpose the Minister for Industry and Commerce is empowered to fix a "standard" price for flour; this is not a price to be adhered to by millers and the public in actual sales, nor a statutory maximum or minimum, but serves solely for the calculation from a schedule (2), set up in accordance with the Act, of the minimum retail price for bread. The present standard price, established by an order made by the Minister on June 1, 1938, is 48s. 6d. per sack of 280 lb. This standard price corresponds in the schedule to a maximum retail price of $11\frac{1}{2}$ d. per 4 lb. loaf (3). From September 1937 this maximum price had been 1s., the standard price of flour having then been declared to be 49s. 6d.

Irish Flax growers have, since the passing of the *Flax Act in 1936*, been guaranteed by the Government a minimum price for their product. This price is fixed by the Government before each sale season - October to the following March 31 - and is called the "standard" price. For the 1937-38 this was fixed at 8s. per stone and for the 1938-39 season has been fixed at 9s. 6d. per stone. At the end of each sale season the Government declare what, according to their investigations, was the average price during the season; this is the "ascertained price". If then the "ascertained" price is less than the "standard" price by more than 3d. per stone, a bounty equal to the difference is payable to all registered growers who have had their flax scutched at registered scutch mills. The ascertained price for the season ending March 31, 1938 has been declared to be 9s. $1\frac{1}{4}$ d. per stone; therefore no bounty is payable for that season. For the same reason no bounty was paid for the 1936-37 season. It is to be noted that the standard price for the coming season is higher than the ascertained price for the season ending in March of the present year.

Before February 1 in each year the Government declare a maximum weight on which a bounty may be paid in respect of the coming sale season; the maximum for the 1938-39 is 240,000 stones, which is the same as for the 1937-38 season.

(1) The figures are not yet to hand.

(2) The schedule in force at present was established by the Bread (Price) No. 2 Order 1937, which came into force on August 18, 1937.

(3) This is the price at which "batch" bread may be sold, retail, by the baker.

II. — MEASURES AFFECTING AGRICULTURAL ECONOMY IN GENERAL

Agricultural wages.

In accordance with the terms of the *Agricultural Wages Act, 1936*, agricultural wages in Ireland are limited by a statutory minimum, fixed from time to time by the Agricultural Wages Board set up under the Act. In May of this year this Board made an order fixing new minimum rates somewhat higher than those previously established. The new rates are £ 5.5s. per month during the months October to February inclusive, and £ 6.5s. per month during the months March to September inclusive, for adult workers under a contract of employment of at least six months' duration, and 27s. per week of 54 hours for those under a shorter contract. County Dublin is excepted from this provision and a minimum rate of 33s. per week of 54 hours is prescribed for this county.

NEW PERIODICALS RECEIVED BY THE LIBRARY OF THE INTERNATIONAL INSTITUTE OF AGRICULTURE for the third quartier of 1938 (*).

Acción rural; editado por la Corporación argentina de productores de carnes.
Buenos Aires, v. 1 (1937). -- q.

ACTION vinicole et « La C. G. V. » réunies. Narbonne, n^o. 627 (27 mars 1938).
hebdom. Fr. 30 int.; Fr. 45 étr. [Formerly: « La C. G. V. » and « Action vinicole »
independent publications].

AGRICULTURA. México, Secretaría de agricultura y fomento, Departamento autónomo de prensa y publicidad, v. 1 (1937) — bimestr. \$ 3.00.

AMERICAN institute of real estate appraisers. The journal of the American institute of real estate appraisers of the National association of real estate boards. Chicago, Ill., v. 6 (1938) — trim. \$ 1.25 par fasc.

ANNALS of collective economy. Genève, v. 4 (1928), 3 fois par an, \$ 8. [Title also in French, German and Spanish].

(*) List of abbreviations: bihebd. (biweekly); bimens. (twice monthly); bimestr. (every two months); déc. (every ten days); étr. (foreign price); f. (copy); hebdom. (weekly); int. (home price); irr. (irregular); mens. (monthly); no. (number); N. S. (new series); p. a. (per annum); q. (daily); sem. (half yearly); s. (series); trihebd. (every three weeks); v. (volume); trim. (quarterly).

N. B. — Between brackets [] are given translations and explanatory notes not appearing in the title of the review.

- ARGENTINA. Junta reguladora de vinos. Boletín informativo. Buenos Aires, v. 1 (1935) - mens.; before August 1936 bimens. (Ministerio de agricultura. Junta reguladora de vinos).
- L'ASSOCIATION agricole douanière. Bulletin d'études et d'informations économiques agricoles. Paris, v. 1 (1938) - bimens. [Mimeographed].
- BANKER [London], [The financial news limited], v. 43 (1937) - mens. £ 1.13.0 int.; £ 1.15.0 étr.
- BIBLIOGRAPHIC index; a cumulative bibliography of bibliographies. New York City, H. W. Wilson co. v. 1 (1938) - trim. \$ 5.00.
- BULLETIN d'information économique, éditée mensuellement par la Banque nationale pour le commerce et l'industrie. Paris, n°. 1 (1933) - mens.
- CENTRALBLATT für die Zuckerindustrie; Wochenschrift für Fabrikation, Landwirtschaft und Handel. Organ des Vereins deutscher Zuckertechniker. Magdeburg, [Schallehn & Wollbrück], v. 18 (1910), - hebd. RM. 30.
- EL CREDITO argentino; revista de fomento, economía y finanzas. Buenos Aires, v. 10 (1936) - mens. \$ m/n 6 int.; \$ 24 étr.
- CUSTOMS trade returns for the quarter... [La Valletta] - 1938, trim. (« Malta government gazette supplement »). [Published by: « Collector of customs »].
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- FOREIGN policy reports. New York, N. Y., Foreign policy association, v. 13 (1938) - bimens. \$ 5.00.
- INDUSTRIA lechera... Organo del « Centro de la industria lechera ». Buenos Aires, v. 19 (1937) - mens. 5 \$ m/n int.; 6.85 \$ m/n étr.
- PALESTINE. Jewish agency. The economic research institute, Jerusalem. Bulletin of the Economic research institute of the Jewish agency for Palestine. Jerusalem, v. 1 (1937) - mens. 250 mils.
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- REVISTA de industria. Mexico, Departamento autónomo de prensa y publicidad, v. 1 (1937) - mens. \$ 6.00.
- REVISTA del trabajo... Departamento autónomo de prensa y publicidad. México, v. 1 (1937) - mens. \$ 12.00. [Published by: « Departamento del trabajo »].
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SCHWEIZERISCHE Bibliographie für Statistik und Volkswirtschaft... Bearbeitet vom Eidgenössischen statistischen Amt. Berne, Schweizerische Gesellschaft für Statistik und Volkswirtschaft, v. 1 (1937) - irr. Fr. 2.50. [« Beilage zur Zeitschrift für schweizerische Statistik und Volkswirtschaft »]. [Title and text also in French: « Bibliographie suisse de statistique et d'économie politique »].

ZEMĚDĚLSKÝ pokrok; měsíční zprávy pro zemědělskou praxi ze zemědělského výzkumnictví, školství, poradnictví a zvelebovací služby zemědělské. [Prague], [Ministerstvo zemědělství], v. 5 (1938), mens. Kč. 60 int.; Kč. 80 étr. [Supplements attached: « Zemědělský inženýr », « Věstník Svazu výzkumných ústavů zemědělských », « Zemědělská škola »]. [Agricultural progress].

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MONTHLY BULLETIN

OF

AGRICULTURAL ECONOMICS AND SOCIOLOGY

1938

No. 10

LAND RECLAMATION AND IMPROVEMENT IN EUROPE

SUMMARY: I. *General aspects.* Importance of land reclamation schemes, and the various reasons making them necessary in the different areas: hygienic, economic, demographic and social. Characteristic examples of different types of land reclamation. New factors which in recent times have revived interest in land reclamation and have widened the original conception, especially in European countries. Population increase, the closing of channels for emigration, and autarchy; the impulse given by these to land reclamation. The increasingly complex objectives of land reclamation which may now be considered a national matter, with a consequent increase in Government intervention in the organisation and financing of the schemes. Closer co-ordination of public and private action for the attainment of aims which are no longer purely hygienic or economic, but social. The social aims can be fully attained only by land reclamation understood in the wider sense of internal colonisation. — II. *Organisation and development of land reclamation schemes in certain European countries.* (A) Germany, Denmark, Great Britain and Northern Ireland, Italy, the Netherlands, Belgium; (B) Bulgaria, Finland, France, Greece, Hungary, Ireland, Lithuania, Poland, Portugal, Romania, Sweden, Switzerland, Czechoslovakia.

I. — General Aspects.

Among the slow but unceasing efforts made for the general improvement of the conditions of agriculture, land reclamation understood in the specific sense of the conquest of land over water represents one of the most ancient forms of activity, going back at times to the earliest days of the very existence of States.

Speaking generally, land reclamation schemes are undertaken for hygienic or economic reasons, or because of demographic and social considerations, these factors working singly or more often in combination. The same importance, however, does not attach to each of these types; it is evident that the interests of health render land reclamation a matter of greater collective utility and urgency than in the other cases. Land reclamation for hygienic reasons was formerly mainly carried out by private enterprise but now ever more frequently assumes a public character, with constantly greater intervention on the part of the public authorities. This tendency is clearly reflected in legislation.

In many countries, the first impetus given to land reclamation was due to the necessity of draining marshlands from which emanated malarial infections.

In Italy, the Pontine Marshes are a typical example. In times long past, the Italic populations in that region were in fact compelled to wrest their soil, foot by foot, from the treacherous swamps and from the malaria pest.

In other cases hygienic considerations did not exist or were less urgent. The motive for land reclamation was rather of an economic character. Land had to be won from water for agriculture, so as to ensure the population the means of existence. A classical example of this type is the Netherlands, where the formation of *polders* represents the result of centuries of effort for the conquest of land for cultivation (1). The region of Haarlem, which is to-day the great flower garden of Holland, consisted originally of submerged sand and peat. As a well known Dutch writer put it: "Nature has done nothing for us; she has refused us her gifts; all that you see in this country is the fruit of the toil and industry of the inhabitants."

In the following pages an account will be given of these two oldest and most celebrated types of land reclamation.

But in recent times new factors have contributed to reawaken interest in land reclamation and to widen the original concept, especially in European countries. As is well known, there is in Europe a constant increase of population. In 1810 the population of the whole continent, including Russia, was 199 million inhabitants; in 1840 it was 251 million; in 1870, 308 million; in 1900, 393 million; in 1930, 496 million and in 1935, 519 million. Hence for the first period of 30 years there was an increase of 26.1 per cent., during the second of 22.7 per cent.; during the third of 27.6 per cent. and finally during the fourth period of 30 years, the first 30 years of the present century, the increase has been 26.2 per cent. On the basis of the present birth and mortality figures, it may be roughly calculated that the population of Europe will reach 596 million in 1960, or a further increase of 20.2 per cent.

The population living by agriculture is somewhere about 50 per cent. of the whole. The highest densities of rural population are in Switzerland with about 80 per cent., Greece with about 67, the Netherlands with 62.5, Poland with 53.7, Belgium with about 53, Italy with over 52, Norway with 49.8, and Germany (former frontiers) with 48 per cent.

This population increase acts as a stimulus to the highest possible intensification of food crops to meet the growing consumption needs. Anxiety in this respect is clearly expressed, as concerns Germany, in the preamble of the regulation in application of the law of February 10 1937 on hydraulic and land consortia: "Sun and water are elements indispensable to life; but water is also a destroying force. The German people desire to increase the yield of their soil and to ensure their existence on that soil; one of the means of reaching those ends is the regulation of the water system. The Reich, the *Länder* and the communes recognise that there lies one of their tasks." In Hungary also increase of

(1) L'AGRICULTURE AUX PAYS-BAS. Ministère de l'agriculture et des pêcheries. Direction de l'agriculture. La Haye, 1937.

population has made it necessary to irrigate the lowlands with a view to internal land settlement. The Law No. 20 of 1937 provides for a great irrigation scheme and for a National Office for the purpose, the object being to achieve the most abundant production possible.

In many European countries, however, intensity of cultivation has very nearly reached the limits set by technique and profitableness. Hence the necessity of winning new areas for cultivation, or of increasing the fertility of those already under cultivation. Increased efforts are being made to attain this latter object by means of marling and liming. In Great Britain in 1937 measures were taken to help the farmers to increase the fertility of their land by the addition to the soil of supplementary elements (lime and basic slags). For some time past there has been considerable activity of this kind in Denmark. The Danish Society for cultivation of heathlands (1), as well as works for bringing marshes under cultivation, for the establishment of irrigation canals and for the dyking of land exposed to floods, has organised systematic marling of land recently cleared as well as on thousands of hectares which had been under cultivation for a long time but needed lime. In Hungary, as early as 1926, the Government took measures for the dressing of saline lands by liming and by the application of calcareous sub-soil.

Moreover, surplus population no longer finds, as formerly, a ready outlet in emigration: the currents of migration between the continents have enormously declined. Disquieting conclusions were reached by a Commission of Experts on the possibilities of colonization offered by the principal regions of the world which are up to the present inadequately developed. These conclusions are set out in a report (*Limits of Land Settlement: A Preliminary Report on Present-Day Possibilities*), presented to the Xth Conference of International Studies which was held in Paris from June 28 to July 3, 1937. In substance, the best lands are already occupied, and in view of the measures restricting movements of population, migration does not now afford a sufficient remedy for the state of economic and social tension caused by overpopulation. Furthermore, it has been shown by experience that the existence of unoccupied lands does not necessarily imply possibilities of land settlement, such possibilities depending also on the financial resources and on means of transport available.

Apart from these considerations, it is clear that with the adoption of the policy of autarchy or self-sufficiency the problem of land reclamation has entered on a new and more active phase. The whole conception of it has been transformed, and it is now no longer seen as mere land drainage, but as a far wider and more complex policy of land utilisation, with definite economic and social aims. The obstacles placed to the free circulation and distribution of commodities by the many commercial and customs restrictions, as well as

(1) FLENSBORG C. E.: La Société danoise pour la culture des landes. *Revue commerciale danoise* (Informations du Ministère des affaires étrangères du Danemark), No. 59, January-March 1938. Copenhagen.

by currency policy, tend to the economic and commercial isolation of the different countries and to make of them so many closed economic systems. The result is that it becomes essential for the different States to give the greatest possible encouragement to national production, whether agricultural or industrial, in order to render themselves as independent as possible of foreign imports of foodstuffs and of raw materials. In regions where intensive cultivation has already reached its maximum and where on the other hand there are waste lands either marshy or subject to flooding, land reclamation has been seen to be the indispensable means for rendering these lands productive, in the general interest of the nation. Without dwelling on the better known and more striking examples (Germany, Italy, the Netherlands, etc.), the case of Greece may be cited. In the absence of cultivable lands, and faced with the necessity of making provision for the settlement of 150,000 refugee families who poured into the country after the great war and the following war with Turkey, the Greek Government was obliged to organise far-reaching schemes of reclamation of marshlands, in order to form new centres of rural life. Bulgaria also had to carry out drainage of marshes and swampy lands in order to settle her refugees.

The new autarchic aspect explains the greater intervention of the Governments, taking the form of large grants of funds and of facilities of all kinds for carrying out the schemes. There is the problem of feeding the nation and of finding employment for the mass of surplus labour. There is the demographic problem, since it is to the rural masses, physically and morally healthy, that a vigorous and constant increase of the population may be looked for.

The range and complexity of the question is thus evident.

Land reclamation is no longer judged from the simple point of view of economic profit, of a favourable balance of expenditure and receipts; but on the basis of the whole of the advantages derived from it, which go far beyond the narrow idea of the return to the private operator. The chief consideration is the increase in the aggregate return accruing to the farming and also to the non-farming classes, throughout the whole country, from the fact of the increase in production, from the larger possibilities of employment and from the impulse given to internal land settlement.

This change in the conception of land reclamation finds an eloquent illustration in the so-called "integral" land reclamation in Italy. In that country the first Land Reclamation Law, that of Baccarini (1882), had as object mainly the drainage of marshes, which was regarded as a problem in itself, independent of the larger problem of the regulation and utilisation of the waters. The main idea was merely the redemption of unhealthy marshes, without taking count of the other aspects of the question.

The idea was none the less fertile in results in Northern Italy, where a general regulation of the water system was already in existence after a century of persevering endeavour, and formed a basis for the drainage of the marshlands. Nothing of the kind was possible in the South, nor in the Islands, where the mountains are denuded of forest, the valleys narrow and swept by torrent waters; where the geological structure of the soil is unfavourable and the weather conditions still more so, because of the rapid evaporation owing to the high

temperatures, and also because of the uneven distribution of the rainfall, usually concentrated in a few intense winter precipitations.

On the other hand, in regions with inadequate and intermittent water supply and subject owing to the scanty rainfall to periodical droughts, the problem of the control of surplus water is inseparable from that of the utilisation of the water.

Having regard to these differences in the degree of applicability of the law of 1882, the Italian Government based the new law of December 30, 1923 on the two following principles:

(1) the hydro-geological operations of land reclamation are not to be separated from all other works intended to ensure the general regulation of the water system, both as regards protection against flooding and in respect of the utilisation of waters;

(2) hydraulic reclamation is to be supplemented by all the subsidiary works designed to create healthy surroundings, and attach the population to the land.

The reclamation carried out under the new law does not therefore end, as formerly, with drainage and levelling operations; it is linked up and co-ordinated with the correction of water-courses in the mountains and in the valleys, and is supplemented by irrigation works, road construction, organisation of communications by water (internal navigation), arrangements for supplies of drinking water, erection of dwellings for land workers and the formation of rural centres, distribution of electric power, establishment of agricultural industries, and finally, as the crown of the whole work, the campaign against malaria.

These principles inspired the Decree of February 13, 1933 which co-ordinated in Italy all the former provisions on the subject, while introducing improvements suggested by experience.

Land reclamation as now conceived seeks to create conditions of life which will solve one of the most important problems of national agriculture, that of transforming migratory workers into permanent workers by inducing them to settle on the land on small holdings of their own, with the assurance of a stable and peaceful existence.

This is the truly "integral" land reclamation covering the geological, hydro-logical, sanitary, agricultural, economic and social aspects and embracing the problem from first endeavours to final results.

As Prof. Serpieri has said, integral land reclamation is the reclamation alike of the population and of the soil, in their mutual relations.

The general situation varies naturally from country to country, and this fact explains the difference in the meanings attached in different regions to the expression "land reclamation".

The prevailing tendency, however, is for land reclamation activity to have a constantly widening range of objectives, which may be roughly summarised as follows:

(1) improvement of the hygienic conditions of large tracts of land and so of the general well-being of the population;

(2) extension of the area under cultivation, and so of the production of foodstuffs;

(3) employment for the maximum number of workers, thus reducing unemployment; land reclamation works, apart from their intrinsic utility, are undoubtedly of great value in this respect (1);

(4) conversion of an increasing number of casual labourers into permanent cultivators, or farm settlers, thus encouraging internal land settlement;

(5) creation of new industries subsidiary to agriculture.

It is clear that these objectives can hardly be realised by the efforts of individuals and that action on the part of public authorities is required. In consequence the taking of the initiative and the facing of the difficulties of this work of land transformation, which involves many and various kinds of operations, frequently devolves upon the State which is, moreover, aware that this work will create such national wealth as will justify every effort. As regards the group of countries where agrarian reform has been carried out, it must be admitted that the scheme of land drainage operations, wherever they appear to be required, is to be considered an essential complement of agricultural reorganisation. These operations are a means of solving a problem of hygiene and production. Actually, it would be useless to bring into being a legion of farm workers and to establish them on plots formed by parcelling out of the land, if the land to be distributed is poor and gives no return to the efforts of the cultivators. Labour in vain, time lost, and expenditure incurred without adequate return: such would be the deplorable results of a distribution of lands which had not been properly prepared for cultivation. On the other hand, if the portions of land assigned have been rendered fertile and remunerative, as will be the case if brought under a planned scheme of drainage and land improvement, the agrarian reform will be complete and results assured.

The intervention of public authorities is usually concerned either with organisation and supervision of operations, or with giving financial assistance.

A distinction should be made between land reclamation operations of mainly public interest and those in which private interests are predominant. In the former case, the State is the principal operator and undertakes the greater part of the financial responsibility; in the second case, the work is most usually undertaken by the parties concerned, brought into association, sometimes compulsorily, and sharing the financial burden on an agreed quota basis.

As typical organisations, entrusted with the carrying out of land reclamation operations, there may be mentioned, among others, the *Wasser- und Bodenverbände* (drainage and land consortia) of Germany, the land reclamation and land improvement consortia of Italy, the *wateringues* of Belgium, the land drainage co-operative societies of Poland, the public economic associations for carrying out land improvements in Bulgaria.

(1) On this special aspect of the question see: L'ORGANISATION DES TRAVAUX PUBLICS DANS SES RAPPORTS AVEC L'EMPLOI DES TRAVAILLEURS. International Labour Conference, 23rd session 1937. Geneva, International Labour Office, 1937.

In this connection mention may be made of the improvements in the already existing systems of land drainage made in Great Britain in 1930, as the result of enquiries made by the Royal Commission of Land Drainage. Catchment Areas have been constituted and put under the control of Catchment Boards which have to make provision for the upkeep of the necessary works and for the due functioning of the principal water courses.

In other countries, there are special societies dealing with land improvement, such, for example, as the Society for the Cultivation of Heathlands in Denmark, already referred to, and, in Finland, the Land Drainage Society and the Society for Cultivation of Marshlands.

A problem of primary importance is that of obtaining credits for land reclamation operations. It is not easy to obtain funds, since it is a question of investments of large capital sums, with expectation of return only after a long period. Several methods have been adopted: funds are supplied, according to circumstances, directly by the State, or by the banks, or by the social insurance institutions; in some countries there are even special bodies ready to undertake and to finance certain of these operations; occasionally the necessary funds are supplied by means of taxes, the proceeds of which are earmarked for the purpose. Special credit certificates or improvement bonds are sometimes issued; this is the case in Poland. These bonds, based on real property, are widely recognised as sound investments; they may even be State guaranteed.

Thus, when the question is one of large scale works, where the interest of the community is predominant, the State most often assumes the initiative and meets the larger proportion of the costs.

On the other hand, when it is a question of works undertaken by private persons, singly or in association, loans at reduced rates, or non-repayable subsidies, are granted.

In Italy the land reclamation zones are divided into two categories; the first is made up of these zones which have an exceptional importance, especially for purposes of land settlement, and the second of all other zones. In the first category zones, the expenditure for works in certain regions within the competence of the State is met by the State up to 92 per cent. In the second category zones, expenditure by the State amounts to 87.50 per cent.

For the execution of supplementary works of improvement and transformation within the competence of private landowners, the State grants a subsidy which is normally one third of the expenditure, but which may rise to 38 per cent. when land improvement of mountain pastures is undertaken, to 45 per cent. in the case of installations of electric power for agricultural use, and to 75 per cent. for the construction of rural aqueducts.

In Germany, the financing of land improvement works is assured by means of loans, by payments made by the parties concerned themselves, by the payment from the *Reichsanstalt* fund of sums earmarked for soil improvement, and by subsidies given by the *Reich*, the *Länder*, the provinces, and by other institutions.

In Great Britain, an increase of soil fertility, the aim of the Act of 1937 already mentioned, is to be secured by means of subsidies.

In Poland, a State credit fund for land improvements was set up as early as 1925.

In Belgium, the *wateringues* receive State subsidies.

In Switzerland, the Federal Council is empowered to subsidise undertakings the object of which is to improve the soil or to facilitate its working. Grants may be made up to 50 per cent. of the total expenditure, and a percentage subsidy may also be given by the cantons.

In Portugal in 1937 all the work of studying, and of carrying out, land improvement was concentrated in the hands of the State, and an independent *Junta* or Board of agricultural land drainage works was instituted. The State will be reimbursed for the expenditure on this work by means of an annual fixed charge per hectare, known as "irrigation and reclamation levy."

In Denmark, the State supports the marling operations mainly by grant of credits.

In Sweden, the State grants amortisable loans and direct non-repayable grants, for the clearing of swamp lands, for land drainage, and in general for soil improvement.

In Finland, State assistance is given to land improvement works, either by direct subsidies or by amortisable loans at reduced rates.

In Lithuania, the work of draining and improving agricultural land is financed, for the most part, by the State Treasury.

These and other examples are proof of the interest taken by the public authorities in the land reclamation works and in land improvement in general.

In the succeeding pages, in which are given particulars of land reclamation work in a certain number of countries, will be found further evidence of the new tendencies which have appeared in this sphere of agricultural activity and which we have already stressed. It will be seen there has been an increasing association and coordination of public and private activity for the achievement of ends which are no longer, as formerly, purely hygienic and economic, but now also social. These social objectives can only be fulfilled in land reclamation conceived essentially in terms of land settlement.

II. — Organization and development of land reclamation operations in certain European countries.

In the following account of land reclamation work in certain European countries neither completeness nor precision must be looked for, owing to the absence in many cases of special reports on the subject. The sources, though numerous, are fragmentary. The object of this study, however, is to indicate the main lines of the policy followed in this field by the Governments and to describe the most characteristic systems and examples.

GERMANY.

Land improvements have been undertaken in Germany for a long time past. Most of the work (draining and irrigation, utilization of waste water, management of underground water, reclamations, etc.) are carried out by the *Wasser- und Bodenverbände*, which are governed by the Law of February 10, 1937 and the first Decree on these organizations of September 3, 1937 (1). Their activities were brought under unified direction throughout the Reich by this law, which also facilitates the formation of other unions of the same kind.

The *Wasser- und Bodenverbände* are corporate bodies exercising the following functions:

- (1) Regulation of watercourses and of their banks, modification or maintenance of these, regulation of the flow and of the discharge of water;
- (2) Construction of works for navigation and floating, dams, locks, channels and the like, hydraulic installations, catchment basins, their transformation, maintenance, utilization to the maximum, and where necessary, their elimination;
- (3) Drainage and irrigation of lands and protection of land against spates and exceptionally high tides;
- (4) Collection, purification and utilization of waste waters.
- (5) Supply of drinking water and of water for other uses;
- (6) Improvement of lands under cultivation, their maintenance in improved conditions, exploitation and utilization of the cultivated areas;
- (7) Utilization of underground water tables;
- (8) Reclamation of lands by drying;
- (9) Levying of funds required in respect of utilization of waters and of hydraulic installations with the object of soil improvement and discharge of waste waters;
- (10) Promotion and supervision of the operations enumerated;
- (11) Any other functions which the Reich Minister of Nutrition and Agriculture sanctions in agreement with the other Ministers concerned.

The prerequisite for the constitution of these unions is that the undertaking is of real utility to the persons concerned. Membership of the unions may be made compulsory by the authorities who set them up even against the will of all parties concerned; it is, however, rarely necessary to exercise this power, as the majority generally joins the unions voluntarily.

The improvement of marshlands is one of the most important aims of land reclamation work (2). Up to the present, no reliable census of the marshy areas has been taken in Germany.

(1) *ANNUAIRE INTERNATIONAL DE LÉGISLATION AGRICOLE*, 1937, p. 380. International Institute of Agriculture, Rome, 1938.

(2) *SCHROEDER G.: Landwirtschaftlicher Wasserbau. Handbibliothek für Bauingenieure*, herausgegeben von Robert Otzen. Berlin, Verlag von Julius Springer, 1937.

According to an estimate of the former Association for the encouragement of marshland cultivation (*Verein zur Förderung der Moorkultur*), the area of these lands in different parts of the Reich is as follows:

	Hectares
Brandenburg	374,000
Eastern Prussia	361,000
Pomerania	315,000
Hanover	300,000
Schleswig-Holstein	150,000
Silesia	87,000
Westphalia	60,000
Posen-Western Prussia	48,000
Rhineland	30,000
Hesse-Nassau	1,000
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Prussia	1,726,000
Bavaria	197,000
Mecklenburg	150,000
Oldenburg	120,000
Württemberg	26,000
Baden	17,000
Saxony	9,000
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Reich.	2,245,000
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Up to the present, only 15 to 20 per cent. of this total has been brought under cultivation.

In Hanover, Oldenburg and Schleswig-Holstein it is the high moors or marshlands which predominate, elsewhere the low moors. Only approximate figures are available on the distribution of the different types of marshland. According to expert opinion, nearly half or even three-fourths of all the total consist of low moors.

There are also immense tracts where water-logging is harmful to growth. According to an estimate made by the German Council of Agriculture, the land drainage requirements in 1928 were as follows.

Region	Area under cultivation ha.	Area requiring drainage	
		ha.	%
Bavaria	4,550,709	2,184,000	48
Lippe-Detmold	83,349	34,000	41
Pomerania	2,105,822	800,000	38
Lower Silesia	1,708,271	625,000	37
Hanover	2,125,303	731,239	34
Oldenburg	292,241	93,047	32
Province of Saxony	1,768,497	570,000	32
Brandenburg	2,252,103	650,000	29
Schleswig-Holstein	1,157,933	320,000	28
Mecklenburg-Schwerin	926,818	250,000	27
Württemberg	1,213,172	300,000	25
Lubeck (region)	44,500	10,000	23
Eastern Prussia	2,682,887	525,000	20
Bremen	19,877	4,000	20
Saxony (Free State)	1,024,748	200,000	19
Cassel (District)	553,122	95,000	17
Sigmaringen	68,448	11,781	17
Westphalia	1,214,968	150,000	12
Rhineland	1,414,893	150,000	11
Baden	816,250	80,000	10
Posen-Western Prussia	461,132	32,000	7
Anhalt	156,745	9,000	6
Brunswick	227,576	6,100	2.7
Lubeck (Hanseatic town)	20,218	150	0.7
Total	26,889,582	7,830,917	29

The 26,900,000 hectares under cultivation represent 91.9 per cent. of the area under cultivation in the Reich in 1937 (29,300,000 ha.). The greater part of the marshlands is not included in the table. Drainage of the lands shown above thus seems essential if normal yields are to be obtained.

It is reckoned that by means of drainage the following additional yields per hectare can be obtained in years of average moisture and on moderately heavy soils: rye, 5 quintals; wheat, 6 quintals; oats, 7 quintals; potatoes, 60 quintals; sugar beet and mangels, 100 quintals.

Peat cutting is regulated by a number of enactments. These include in Prussia the law of August 20, 1923, in Bavaria that of February 25, 1920, in Württemberg, that of November 28, 1919 and in Mecklenburg-Schwerin the law of April 21, 1920.

Reference may also be made to the Prussian measures of August 9, 1924 and of November 15, 1926 relating to funds or credits for improvement of marshlands forming part of the State lands.

The Central Commission for marshland improvement (*Zentralmoorkommission*) was founded in Prussia in 1876, but in 1936 the functions of this body were transferred to the Research Department of the National Association of Agricultural Sciences (*Reichsarbeitsgemeinschaft der Landwirtschaftswissenschaft*). The technical organ of the Commission was the Prussian Marshland Experiment Station, at

Bremen, founded in 1887, where the new methods of bringing marshlands under cultivation were studied. In the different Prussian provinces there are marshland cultivation committees in close touch with the farmers' associations (*Landesbauernschaften*). The *Verein zur Förderung der Moorkultur* already mentioned was active in all parts of Germany and had, for several decades, devoted itself to the encouragement of schemes for bringing marshlands under cultivation and to the diffusion of technical information on the subject. In 1934 its functions were transferred to the Corporation of Agriculture.

Land improvement works have been pushed on noticeably since 1933. The following table (1) shows the improvements effected from 1933 to 1936.

Nature of works	Length, area, etc.	Cost in Reichsmarks
Regulation of torrent waters	156 km.	4,681,000
Construction of dams	183,284,000 m ³	73,775,427
Drainage by open channels	466,364 ha.	100,846,602
Drainage by pipes	178,144 ha.	85,780,452
Regulation of river courses (a)	11,604 km.	211,354,680
Supplementary agricultural operations	114,111 ha.	41,157,676
Valorization of waste lands	82,399 ha.	65,971,552
Irrigation	16,611 ha.	6,763,429
Supply of drinking water benefiting	1,380,201 inhabitants	72,776,373
Drainage of humid soils (b)	199,281 ha.	54,625,514
Lands won from the sea (works in progress)	19,000 ha.	12,999,324
Country roads	16,553 km.	72,952,510
		803,684,539

(a) 599,237 ha. of area benefited. — (b) Equivalent to about 40,000 ha. of lands capable of cultivation.

The sums shown represent the costs actually occasioned by these operations. The contribution of the Reich Labour Department to their execution amounted to 31,700,000 days' wages.

The total financing of 803,700,000 RM in round figures was effected by means of 422,100,000 RM of loans and of payments made by the parties concerned, by advances of 216,000,000 RM from the funds of the *Reichsanstalt* earmarked for soil improvement, and by subsidies amounting to 165,600,000 RM. The subsidies were granted by the Reich (26,600,000 RM), by the *Länder* (84,800,000 RM), by the provinces (21,800,000 RM) and by other institutions (32,400,000 RM).

Some idea of the benefit resulting from the expenditure of this sum of nearly 803,700,000 RM may be gained by considering the increase in the gross return obtained as a result of the improvements and the extent of the new lands gained for cultivation. The figures are given in the following table:

Nature of operations	Area improved ha.	Increase in gross return		
		RM per ha.	% of return on former area under crop	Reckoned as new lands ha.
Drainage by open channels	466,400	90	26	121,300
Drainage by pipes	178,100	120	35	62,300
Regulation of river courses	599,200	70	20	119,800
Valorization of waste lands	82,400	350	103	84,900
Irrigation	16,600	200	59	9,800
Drainage of humid soils	199,300	70	20	39,900
New lands won from the sea	1,700	400	117	2,000
Total	1,543,700			440,000

The Report on land improvements referred to in the foot note deals also with consolidation of holdings which aims at a more effective exploitation of land and also improves farming conditions in general. Consolidation of holdings has been carried out over 382,838 ha. and has involved an expenditure of 33,359,040 RM.

Experience shows that on the farms thus reparable the returns have increased by 25 to 30 per cent. Moreover, there is often a close relation between land improvements and consolidation of holdings. Frequently the dispersion of farm lands seriously hampers land improvement, while in other cases, a necessary consolidation of farms cannot be effected without preliminary work of land improvement.

The diversity of the legislation in force in the different States of Germany – more than 50 measures, all of them behind the times – formerly made consolidation a most difficult task. Now, the Reich Law on consolidation of farm holdings sets up conditions for the uniform execution of this process throughout Germany.

When it is considered that in the whole Reich there is a total of about 6,000,000 hectares requiring this treatment it will be readily understood that the work accomplished hitherto in this respect will have to be substantially intensified if there is not to be a single hectare wrongly farmed or lying idle.

From 1933 to 1936 an increase in gross return has been obtained amounting to the equivalent of some 96,000 hectares, reckoning at 25 per cent. the increase in yields on the areas consolidated up to the present. The costs of the constitution of a hectare of this new area as reckoned are not very high, namely, 350 RM excluding the administrative expenses.

DENMARK.

In the middle of last century, more than one fifth of the territory of Denmark was waste or uncultivated land. The greater part of this area consisted of the immense heathlands of Jutland, covering more than 100 square leagues (1) and extending in one unbroken plain along the western and central parts of Jutland. Some 30 square leagues consisted of marshes scattered over the country, unhealthy watery tracts where no crops of any value could grow. It was only then that the cultivation of these heathlands, the importance of which was realized, was actively undertaken. The work was entrusted to the Danish Society for the Cultivation of Heathlands (*Det danske Hedeselskab*), founded in 1866. Great interest was aroused among the inhabitants of these tracts, and they took an increasingly active part in the various operations, which included irrigation of lands, establishment of communications and working of the marl. By degrees, the uncultivated fields were transformed into grasslands; at the same time trees and quickset hedges (2) were planted in large numbers. Great importance was also attached to the reconstitution of forest zones. Wooded lands, which in 1866 represented 2.5 per cent. of the total area of Jutland, now cover about 9 per cent., as a result of the planting of 2,800 conifer trees, covering in all some 90,000 ha., and of the establishment by the State of plantations on the dunes and heaths over an area of nearly 80,000 ha. The heaths, which formerly extended further than the eye could reach, have been reduced and they now cover only 30 per cent. of the area they occupied in 1866, and their complete disappearance is imminent, given the annual clearing of some 5,000 ha. (3).

It is recognized that the first necessity for the cultivation of the heathlands is the production of marl; the Society mentioned above at once undertook prospecting on a large scale and succeeded in finding extensive layers of utilizable marl. The greater part of Jutland is now intersected by lines laid down for the transport of marl. State support has been given to these operations in various ways and in particular by the assignment of credits.

Mention may also be made of the operations of agricultural associations, of the State Laboratory for Crop Cultivation and of the Heathlands Association, with the object of determining the lime requirements of the soil. These investigations were begun in 1915, and in 1933 they had covered 25,416 farm holdings with a total area of 509,538 ha. of cultivated fields and grassland, or about 16 per cent. of the arable area of Denmark.

The legislation in favour of marling societies, and the measures taken to ensure subsidies for the transport of marl and of lime, facilitate these investigations, the object of which is to provide that no land is marled or limed until the lime requirements of the soil have been determined.

(1) A square league = 56.73832 km².

(2) DANEMARK. L'AGRICULTURE. Publication du Conseil de l'agriculture. Copenhagen, 1935.

(3) FLENSBORG C. E., article already quoted.

The object of the Society for the clearing of heathlands (*Hedebruget*), founded in 1906, is to give financial support to those engaged in this work and to direct their efforts. It is affiliated to the Society for the same purpose already mentioned. During the thirty years of its work of bringing the heathlands under cultivation, this Society has received grants from the State amounting to 2,895,000 crowns, and has thus been enabled to assist in the clearing of 75,062 ha. of heathland, that is, in the formation of 3,753 holdings of 20 ha. each. In addition to these grants, special subsidies have been allotted to farm workers since 1918. These subsidies amount as a general rule to 100 to 300 crowns, and are granted, once for all, to any needy farm worker who shows his intention of making a home on the heathlands and proves that he is in a position to do so.

The following figures will illustrate the extent of heathland cultivation. Whereas from 1860 to 1925 the population increased by 25 to 30 per cent. in the rural areas known as the islands, in the same period it doubled in the rural districts of the Jutland heaths; from 1904 to 1916, the proceeds of the land tax in the rural departments of the islands increased by about 40 per cent., that of the department of Ribe by about 76 per cent. Similar results were achieved in the other heathland areas. Investigations made in 1930, covering 620 large and small holdings on heathlands, or about 10 per cent. (since the Society for Heathland Cultivation has a membership of 6,300), show that the taxes paid to the State and to the communes in 1930 by these 620 farms amounted to 156,551 crowns; before reclamation, they amounted to 25,288 crowns only. These same farms now pay taxes higher than the subsidies which the Society receives from the State for developing the work of reclamation.

In respect of irrigation, mention should be made of the cutting of 110 canals of a total length of 410 km. serving an area of 7,400 ha. One of the largest works of canalization is that of the Skjernaa waterway, which is 21 km. long and which discharges, at the outlet, about 4 m³ of water per second; the irrigated area is about 385 ha.

In the last fifty years, and mainly since 1900, the Society for Heathland Cultivation has made possible more than 3,000 enterprises for the regulation of water courses, covering an area of more than 167,000 ha.; the cost was about 15,000,000 crowns. Mention may be made, for example, of the reclamation of the Aamosen marsh, in the north of the island of Seeland. This work which was finished in 1933, cost 455,000 crowns and resulted in the reclamation of 3,300 ha.

Artificial drainage works, in cases where it was not possible to regulate a flooded area by natural means, have been effected by virtue of law on pumping of June 2, 1917. Some of this work was carried out by private technicians, for example, the most important draining operation in Denmark, carried out in the Tönder marsh, involving some 11,000 ha. and costing 6,250,000 crowns.

Draining by ditches and drains has been effected by the Society over more than 65,000 ha.

Among recent dyking operations there may be mentioned the sea dykes of the salt marshes of Ribe, 18.4 km. long and protecting 6,820 ha., and that

of V. Vedsted at Söndernäs (Schlesvig) covering 2,800 ha. The area regained by dyking operations may be estimated at about 23,500 ha.

State encouragement is given to draining operations either by means of large subsidies to the Heathlands Association, which in its turn, grants technical assistance on favourable conditions, or by loans, or even, in recent years, by direct subsidies.

By virtue of the laws of March 31, 1933 and December 22, 1934, the State set aside, for a period ending on April 1, 1937, a capital sum of 25 million crowns for the improvement of lands; this capital is distributed in the form of loans and subsidies for land improvement.

The law of February 26, 1937 (1) prescribed that every loan for the purpose of land improvement would be privileged in the same way as the claim of the communes for communal taxes on real property which has been brought under land improvement operations. By this latter term is understood all works of irrigation, drainage, marling, liming and dyking, as well the clearing of heaths and of swamps. The first instalment of repayment is due only at the end of three years, after which amortization will be effected by means of half-yearly payment of one-fourteenth over seven years reckoned from the date of the granting of the loan. In every departmental jurisdiction, a Land Improvement Commission is set up. Loans can only be granted for work, which in the opinion of this Commission, would result in an increase in value greater than the sum advanced and in a return enabling repayment, at due date, of the prescribed rate of amortization.

Loans may also be granted when several landowners jointly execute works of drainage, irrigation, marling and liming.

In the second half of the XIXth century more than half the waste lands of Denmark were brought under cultivation. The most striking example of reclaimed marshland is the Store Vildmose marsh, in the North of Jutland. This work was undertaken by the State under the supervision of a special commission; in this way, 2,700 ha. of sphagnum moor covered with heath were transformed into excellent grassland with a good growth of white clover.

THE UNITED KINGDOM.

Reclamation of water-logged lands has proved of the utmost importance for agriculture. Hence soil drainage was the subject of comprehensive legislation, especially in the XIXth century. The Act of August 6, 1861 remained basic in this respect for a long time. By this Act, the Government was empowered to establish Land Drainage Commissions in any district, on the proposal of the Enclosures Commissioners, following on an application from land-owners representing at least two thirds of the district in question. These Commissions made provision for the upkeep of existing works, for the establishment of new works, installation of machinery, supply of water both for live

(1) ANNUAIRE INTERNATIONAL DE LÉGISLATION AGRICOLE, 1937, p. 432.

stock and for irrigation, for the negotiation of loans, for the levying of taxes, for the reimbursement of expenditure, etc.

By virtue of the new measure of July 30, 1918 (Land Drainage Act), the Land Drainage Commissions could be set up not only on the application of the landowners concerned, but also on the proposal of the County Councils within whose area of administration the lands were situated. By the Act of 1918 a phase of more marked State intervention began; the Ministry of Agriculture is virtually empowered to draft drainage schemes, both on the technical and the financial side, whenever improvements can be applied ensuring to the area in question a plus-value higher than the costs of carrying out and maintaining such improvements. The scheme had to be made public and the landowners concerned had the opportunity of submitting their observations which had to be taken into consideration before the scheme could become definitive. For the execution and maintenance of land drainage work, all the functions of a Land Drainage Commission were conferred on the Ministry by the Act of 1918. Reimbursement of the maintenance expenses may be effected by summary methods; but landowners who so desired could be granted the right to pay by instalments.

The Land Drainage Act of August 1, 1930 (1), which was the outcome of the enquiries made by the Royal Commission of Land Drainage, completed the organization in this respect, and marked the beginning of a new period in the history of land drainage in Great Britain. The land drainage areas are now marked off and organized in drainage districts; over each of these is placed a Land Drainage Committee which is a corporate body, with technical and administrative powers.

The most important innovation however is the constitution of Catchment Areas with their Catchment Boards, the purpose of which is to undertake and maintain all operations essential to ensure the satisfactory condition and working of all the principal watercourses in certain regions, without which there could be no effective land drainage.

The new measures also make provision for direct State subsidies in certain cases.

Mention may be made here of the Agriculture Act of July 30, 1937 (2) which is intended "to assist farmers to increase the fertility of their land by the application of basic slag", and by means of drainage. The means contemplated consist actually in the allocation of subsidies. To meet costs of purchase and transport of lime and basic slag, subsidies are granted at the time of purchase, according to the Government's Land Fertility Scheme. These subsidies are to represent as nearly as possible half, in the case of lime, and in that of basic slag one fourth of the farmer's outlay. In regard to land drainage, the Act makes provision for State subsidies to the bodies undertaking the work. Special provisions are applicable to Scotland.

(1) *ANNUAIRE INTERNATIONAL DE LÉGISLATION AGRICOLE*, 1930, p. 612.

(2) *ANNUAIRE INTERNATIONAL DE LÉGISLATION AGRICOLE*, 1937, p. 327.

There are also other improvement measures of a more general character. The object of these Acts, the most important being that of 1864, the Improvement of Land Act, is to allow landowners to borrow for authorized improvements, the loan being amortizable by annual instalments constituting a first charge on improved lands. The list of authorized improvements is long and includes not only agricultural operations, such as drainage of lands, supply of water, provision of dwelling houses for farmers, accommodation for farm workers and farm buildings and construction of roads and of fences, but also various other operations essential for agricultural and other purposes. In any case, the special proposals require the approval of the Ministry, by order of which the annual repayment of the loan is made a charge on the land. The loans are not made from State funds, but, as a rule, from private undertakings empowered under the Act to promote the work.

ITALY.

Infertile, marshy and depopulated zones were found, here and there, in nearly all parts of Italy, but in two parts of the country such areas were especially concentrated in two long and narrow strips: one, situated in the North-east, on of the coast of the Upper Adriatic; the other, in the West, along the central portion of the Tyrrhenian coast. The former is shaped like a great fan, covering about one million hectares to the north and south of the river Po. On one side the fan widens out at the expense of the Venetian lowlands while its northern border reaches as far as Istria. On the other side, it spreads at the foot of the Emilian Apennines to the division between Northern and Central Italy.

In this region the struggle maintained against the marshes and malaria goes back to very remote times. This vast tract included lands lying below sealevel, and the streams that watered them were often barred, at their mouths, by dunes. Consequently, the flow of waters, naturally very sluggish, was stopped over irregular periods of varying length. Lagoons formed and rose at times to a level which prevented any attempt at cultivation. Sometimes, the landscape was one of marine depressions, filled with salt water or covered with marsh, sometimes pastures could be seen but of very poor quality, exposed to inundations of varying duration.

The second large strip of waste lands, the Tyrrhenian portion, extends from the mouth of the Serchio river to that of the Sele. It may be divided into three parts: the Tuscan Maremma, the Roman Maremma and the marshy belts of Campania.

One of the largest and best known of these marshland areas is the Pontine Marshes. Although similar in certain hydrographic features to the Adriatic zone, the Tyrrhenian zone has none the less its own special physiognomy. It is liable to sudden and frequent inundations, which in the season of violent and prolonged rainfall pour down from the neighbouring mountains on to the narrow strips of low-lying littoral, which they flood and transform into marshes. When these lands are cultivated, tracts of extensive cropping, growing cereals, alternate with pastureland. There is fertile soil in abundance and the climate is favourable to plant growth even in winter. Unfortunately, owing to the malarial

conditions, the farm workers, who gave their services for short periods for certain work, were obliged to find work elsewhere for months at a time.

Further south, the general conditions were still worse, for a number of reasons: the virulence of the malaria, the irregularity of the water supply, the vast tracts (*latifundia*) where grazing land alternated with cereal cropping, the latter, however, of the extensive type with very poor yields, owing to the very low density of the rural population.

If in addition to these two immense belts of marshlands, the great number of other, smaller areas not less unhealthy, in Apulia, Calabria, Sicily and Sardinia, are considered, the magnitude of the problem of land reclamation in Italy is readily understood. This reclamation, as studied and directed in all its aspects by the national Government, has been described by the term "integral".

Among the numerous legislative measures on the subject, those of May 18, 1924 and of November 29, 1925 may be quoted here. By these measures there were grouped, among the areas subject to reclamation, lands which for hydrogeological reasons, or owing to the inadequate means of communication, or to the shortage of water for irrigation, or, speaking generally, for any serious reasons, whether natural or social, were, from the farming standpoint, in a backward condition, but capable, if certain measures were adopted, of transformation in the general interest. From 1925 to 1927, a series of law was enacted, the purpose of which was to encourage clearings, ploughing with machine traction, the employment of electric power in farm work; to open credits on favourable terms for all improvement work; to increase the State contributions to irrigation, and to promote the formation of rural centres.

The law, which formulated in the fullest degree the programme of "integral land reclamation," however, is that of December 24, 1928 (1). By this enactment all existing gaps in the previous legislation were filled, and the various problems till then judged insoluble or remaining in suspense were finally solved. These included the supply of drinking water; construction of roads essential to the intensification of cropping; construction of rural centres and of farm buildings, etc. In particular, provision was made for financing numerous measures relating to the various land reclamation operations. The whole scheme of operations, as drafted in this law, involves a total expenditure of about 7 milliards, including 4 ½ milliards for hydraulic reclamation and subsidiary work, and 2 ½ milliards for irrigation, the construction of villages, farms, aqueducts and country roads.

Finally, the Decree-Royal of February 13, 1933 co-ordinated the measures in force and dealt with the whole question on the juridical plane, and further introduced the distinction between reclamation proper and land improvements.

(1) A. SERPIERI: La legge sulla bonifica integrale nel primo anno di applicazione. Ministero della agricoltura e delle foreste. Rome, 1931-IX. - *Idem*: La legge sulla bonifica integrale nel secondo anno di applicazione, 1932-X. - *Idem*: La legge sulla bonifica integrale nel terzo anno di applicazione, 1933-XI. - *Idem*: La legge sulla bonifica integrale nel quarto anno di applicazione, 1934-XII. - *Idem*: La legge sulla bonifica integrale nel quinto anno di applicazione, 1935-XIII.

Reclamation works are carried out in accordance with a general scheme of operations, with considerable hygienic, demographic, economic and social advantages, in areas classified and delimited by the State under the name of *comprendori*. Improvement work is undertaken for the benefit of one or more farms, independently of a general land reclamation scheme.

The *comprendori* fall into two categories: the first includes the areas of land reclamation of exceptional importance for internal land settlement, and the second, all others of minor importance.

All the operations necessary for reclamation are to be carried out in the aforesaid zones as follows: the State undertakes those recognized to be in the nature of public works, and private individuals are legally obliged to carry out the remainder. The first are at the expense of the State, with contributions from the landowners; the second are at the expense of the owners, with State assistance.

The following operations come within the competence of the State:

(a) Reafforestation and reconstruction of deteriorated forests, correction of the upper courses of mountain waters, reconditioning of slopes by means of meadows or wooded pastureland, draining and agricultural treatment of these slopes in so far as such operations are of value for the general purpose of stability of the lands and for the proper regulation of waters;

(b) Reclamation of lakes and pools, of marshes and marshy lands or lands, generally speaking, without proper run-off;

(c) Fixing of dunes and plantation of wind-breaks;

(d) Supply of drinking water to rural populations;

(e) Protection against water, and the supply and farm utilization of waters;

(f) Transformation huts and fixed or movable lines of distribution of electric power for agricultural purposes in the zones in question;

(g) Construction of communications and other work of general interest for the area;

(h) Consolidation of parcels of land, even if they belong to different owners, into suitable units.

The expenditure to be met by the State for works within its competence may reach 87.5 per cent. of the total cost.

The subsidies granted by the State to private persons for their share in the work amount normally to one third of the total expenditure, but may reach, in certain cases, 45 or even 75 per cent. In addition various credit institutions grant credits on exceptionally favourable terms to private persons, under the form of loans, current accounts, etc.

For each *comprendorio*, one or more owners' consortia are set up on the basis of majority membership, declared or presumed, in accordance with certain well defined criteria. Consortia may also, exceptionally, be officially constituted. It is incumbent on them to supervise the upkeep of the land reclamation works and to ensure, if need be, their regular working. Unless other provision is made, the State entrusts the consortia with the carrying out of works within its competence. They are also to carry out works in the competence of private

individuals when so requested, these latter to make provision for the expenses in the proportion and according to the terms established by the law.

Side by side with these consortia, the work of the *Opera Nazionale Ex-Combattenti* (Institute of Ex-service Men) should receive mention. This officially supervised body purchases and may even expropriate lands which are capable of reclamation, transforms these lands, making them suitable for intensive cultivation, and apportions them among the families of ex-service men who are farm-workers.

The official body in supreme control of all these operations is the Under-Secretaryship of State for integral land reclamation; it is placed under the Ministry of Agriculture and Forests.

At the end of 1937, the total area of the *comprensori* on which the State had carried out land reclamation works was 5,700,000 ha.

If the full importance of the achievement is to be appreciated, it should be pointed out that, owing to the works executed or in course of execution, it has been possible not only to carry out the hydraulic and hygienic reconditioning of more than 1,500,000 ha. of what had been previously marshland, but also to establish on the land a great number of workers. The latter, according to calculations based on about 1,000,000 ha., number on the average 42 inhabitants to the km².

The expenditure on public works of this kind over the period 1929-30 to 1936-37 amounted to 4,493,300,000 lire. To this sum must be added 2,121,500,000 lire which the State has disbursed in the form of subsidies for land improvements carried out by private persons, *viz.*, irrigation and water finding, rural aqueducts, farm roads, rural buildings, clearing and treatment of land, mountain pastures, applications of electricity to agriculture.

From an enquiry recently undertaken an idea may be gained of the extent of the economic, demographic and social results of integral land reclamation. These results are shown in the following table. The initial figures refer to the position prior to the reclamation works and the final figures to the subsequent position.

The index of the gross production available for sale rose from the initial value of 100 to the figure of 2,438. That of manual labour per hectare varied between a minimum of 100 to 208 and a maximum of 100 to 3,618.

The index of job labour (*braccianti*) is of special interest; it will be seen that it tends to diminish in a varying degree, sometimes reaching zero; the interpretation of this is that the farm worker has in the end settled definitely on the land.

The introduction of intensive cultivation, the raising of the standard of living of the farm workers, the regulation of the run-off of surface waters, have all been powerful factors in the struggle against malaria. The resulting increase of population in the reclaimed territories is noticeable. For example, in the province of Ferrara, where half the rural area is reclaimed land, the density has risen from 84 (previous to the operations) to 140 inhabitants per km². In certain reclaimed zones in the province of Venice, not only has the population figure trebled, but a marked change has been noted in the ratio between the population dispersed in the rural districts and the concentrated population.

Index of production, of labour employed and of the reduction in job labour before and after reclamation operations.

Area of reclamation	Value of production per hectare			Labour employed per hectare			Percentage of job labour	
	Initial lire	Final lire	Index of increase	Initial lire	Final lire	Index of increase	Initial hours	Final hours
<i>Venetia.</i>								
Left Bank of Adige	1,422	5,560	391	277	1,453	524	16	0
Caposile	265	2,697	1,018	111	852	767	91	3
Lower Ongaro	88	1,860	2,114	46	525	1,141	100	0
Bandoquerelle	353	1,460	414	90	287	319	100	0
<i>Emilia.</i>								
Ferrara land reclamation	435	2,162	497	173	623	360	100	15
Basso Ravennate	1,976	6,508	329	328	1,677	511	0	0
Gallare	335	1,930	576	94	708	753	95	24
Parmigiana Moglia	516	3,012	583	139	946	680	0	24
<i>Tuscany.</i>								
Plain of Cecina	804	2,830	352	176	545	309	71	1
Grosseto	496	1,558	314	71	257	362	74	12
<i>Latium.</i>								
Isola Sacra	119	1,130	949	90	472	524	89	5
Agro Romano	712	1,940	272	135	540	400	38	3
<i>Campania.</i>								
Sessa marsh	100	2,257	2,257	27	305	1,130	92	9
First zone of Vico	612	3,284	536	206	430	208	43	1
<i>Apulia.</i>								
Foggia "chessboard"	318	1,846	580	131	634	484	59	51
"Murge" of Bari	200	1,463	731	197	1,769	898	58	21
Great salt basin	1,314	7,446	567	352	1,037	294	89	0
Taranto	355	1,100	309	230	1,000	435	70	35
<i>Sardinia.</i>								
Terralba	62	1,512	2,438	22	796	3,618	100	0
Sanluri	131	1,010	711	40	337	842	5	0

Another very striking example is that of the Pontine Marshes (77,000 ha. approximately). Formerly, the population of the area was only some hundred persons, and that only in the summer months, sheltered in miserable huts and exposed to all the risks of the most virulent form of malaria. Now, several towns (Littoria, Sabaudia, Pontinia, Aprilia) and 17 rural centres have arisen; the land is covered with farm workers' dwellings (3,147) and farms (2,574), and the population figure is 60,000 workers and settlers.

Among the principal zones of reclamation, already completed or approaching completion, the following may be quoted:

In the region of the Adriatic: the *comprendorio* of land transformation of Lower Friuli (70,000 ha.), of Burana (same area), of Parmigiana Moglia

(74,000 ha.), that of Cremona-Mantua (50,000 ha.), the Padano-Polesano of Rovigo (66,000 ha.).

In Tuscany: the plain of Grosseto (45,000 ha.).

In Latium: the alluvial lowlands of the Tiber, with their three hydraulic reclamations ensured by pumping installations, the zones of Ostia, of Isola Sacra, of Porto and of Maccarese, covering in all more than 20,000 ha.

In Calabria: the zones of S. Eufemia, of Sibari (Sybaris) and of Allipunta delle Castella.

In Apulia: the reclamation scheme of Tavoliere, affecting more than 400,000 ha.

In Sicily: the plain of Catania (22,000 ha.).

In Sardinia: the reclamation of Campidano d'Oristano, with the formation of the large artificial Lake of Tirso, which serves two purposes: irrigation of the district and supply of electric power.

To give a fresh impulse to integral land reclamation the Decree Law of January 13, 1938 allotted a new sum of more than 3,000,000,000 lire to this purpose. This fund will be earmarked for zones that promise to give a more rapid and higher return, having regard to the social objects of land reclamation and in particular of land settlement.

NETHERLANDS.

The significance of the great works of dyking and drainage that have been effected in the Netherlands and which do honour to the Dutch people can only be rightly understood if we assign to them their place in the history of this nation. To give an idea of the effort expended in the conquest over the sea and of the results obtained, it is enough to recall the far distant era when the present territory of Holland was merely an immense zone of sand and peat, for the most part invaded by the sea, and with marshes everywhere, a zone barely separated from the sea by a broken chain of dunes constantly washed over by the high tides and forming only a partial shelter. The portions of land which emerged consisted of sand and peat, unfit for cultivation (1).

The main reclamations in Holland were effected by means of immense artificial dykes, enclosing areas of sand and alluvial clay liable to inundation and isolating them from the sea.

Once the salt water is kept out, the areas gained are intersected with a close network of channels, arranged in groups and at various levels, which serve to drain the land. By means of numerous pumping systems worked formerly by the typical picturesque wind mills, but now by steam or electric power, drainage or alluvial water is gradually lifted into the higher level channels whence it is discharged into the sea.

(1) See: *L'AGRICULTURE AUX PAYS-BAS*, already quoted.

The areas thus regained are called "polders" and by the industry of the Dutch people these have been transformed into fertile areas and immense gardens, and bear witness to the strength of the human will and intelligence in the struggle with the devastating forces of nature.

The most celebrated example of these drainage operations is the conquest of the Lake of Haarlem (18,500 ha.) which is now one of the richest of the polders, and supports a large industrial population.

The inundation in 1916 of the north of North Holland and the problem of the supply of cereals in the country during the great war, led to the decision to dyke and drain the Zuyderzee. This truly national enterprise has now been largely realised. In 1927, the specially appointed Department of the Zuyderzee operations was able to begin the great works to the east of the island of Wieringen and on the "Kornwerderzand", a stretch of sandbanks to the west of the Frisian coast. On May 28, 1932 the dyke was closed and the barrier thus completed.

The barrage from the coast of North Holland to the island of Wieringen is $2\frac{1}{2}$ km. long; that from Wieringen to the coast of Frisia about 30 km. The lake thus obtained is called Ysselmeer and communicates with the sea of the Wadden by means of 25 sluices, 15 near Wieringen and 10 near Kornwerderzand. Beside these sluices, locks for navigation have been constructed.

The width of this barrage or closing dyke, measured at the Amsterdam low level, is about 86 metres. As a protection against the sea, a parapet has been erected on the dyke to the height of 3 to $3\frac{1}{2}$ metres. The construction of the Zuyderzee barrage, properly so called, has taken 11 years.

The system adopted for the formation of polders is of special interest. A "trial polder," that of Andijk, measuring some 40 ha. was established, dyking being completed in 1927. When the work necessary for ensuring the discharge of the waters was finished, the work of bringing under cultivation was begun in 1929. On the lands obtained, trial fields were established, where a number of experiments were carried out, both in respect to the hydrographic system and to the methods of manuring, soil crumbling, choice of crops and other questions. The trial polder continued to be farmed as such up to November 1, 1935, after which it was worked as an ordinary farm.

The dyking of the north-west polder, the "Wieringermeer", was begun in 1926 and finished at the end of 1929. At the beginning of 1930 the pumping of the water, which extended as far as eye could reach, was put in hand and on 22 August of the same year the "Wieringermeer" was dry; in this way the territory of the Netherlands was increased by 20,000 ha. of cultivable land.

Towards the beginning of 1930, a special department was formed for bringing the "Wieringermeer" under cultivation. The parcelling out was executed according to a plan prepared by the Lovink Commission and published in its Report. The parcels measure on an average 20 ha. In the southwestern part there was a departure from this rule and from 30 to 70 hectares went to a plot.

After some years, the total area of cultivable lands had become so large that a special organization was required for the work of bringing them under cultivation, and for this purpose a society for farming the "Wieringermeer" was founded.

The housing of the workers proved to be one of the initial difficulties. The condition of the soil and the sinking of the ground made special precautions necessary in the erection of dwelling houses.

At the beginning of 1931, however, a start was made in planning farms and shortly after the first stone of the first village was laid. The "Wieringermeer" now possesses three villages situated at the crossroads of highways and canals, and thus at the centres of economic activity. The majority of their inhabitants are workers employed in bringing the land under crop, but a class of small dealers has developed gradually. Lands for this type of enterprise are leased on terms of emphyteusis. Permission to set up a commercial undertaking in these villages is made conditional on certain qualifications, *e. g.*, professional knowledge, a certain financial stability, personal capacity, etc. Workers' families engaged for cultivation work, etc., must undergo a medical examination, and it is hoped in this way to ensure a certain selection.

The working population occupy dwellings built for them in the villages by means of State aid. The Housing Bureau of "Wieringermeer" has been set up for the erection and administration of the houses built with State aid. The houses are simple in type, but well arranged, and the average level of the housing in "Wieringermeer" is decidedly higher than that of the other rural districts in the Netherlands. Supplies of water and of electric power are duly provided and the measures of social insurance in force in other parts of the country are applied here also.

In 1937, 156 farms had been rented, covering some 6,200 ha. In addition to these farms, 600 hectares have been let as parcels not belonging to any particular farm. The duration of leases is six years; the conditions are in accordance with the principle of sliding scale renting, that is to say, for each farm a basic rent is fixed which is adjusted by means of an index number. For arable farms, the index-number varies with that of the crop products as determined each year by the Department of Agriculture; for grazing farms, the index number varies with the average price of milk.

Applicants for tenant farming must comply with certain conditions; they must possess adequate working capital fixed, for arable and mixed farms, at 300 florins par ha. and, for grazing land, at 250 florins per ha. In assigning farm holdings to the persons concerned, account is taken of personal capacity and of vocational knowledge. Rents for the first years are fairly low, partly to allow cultivators to recover after the heavy expenses of installation, partly because the lands have not yet attained their full agricultural value.

The basic rates for the renting of sandy lands are as a rule 30 florins per ha. in the first and second years, 40 florins in the third and fourth years and 50 florins in the fifth and sixth years. For clayey soils, these rates are respectively 50, 60 and 70 florins; for sandy-clayey lands intermediate prices are fixed.

For drainage done gradually on clayey lands, the cultivators receive a compensation of 10 florins per year and per ha. The very successful results of farming by private persons in the "Wieringermeer" have done much to arouse

interest in the new lands among the farming population of the Netherlands, and to stimulate the desire to acquire such a farm.

In future years, the assignment of lands will continue. Some 10,000 ha. are available for renting; the Government has set apart 1,000 ha. distributed among the different polder areas. These lands include farms of varying nature and size. The rented farms are on an average from 35 to 40 ha. The arable farms are usually somewhat larger; the mixed farms are about average in size, and the grazing farms are as a rule the smallest.

Buildings are erected at the cost of the Government. An endeavour has been made to combine simplicity with practical needs, and to reduce the cost as much as possible by mass production.

The lessons of experience are utilized, and no improvement that would increase the practical value is neglected.

The north-east polder covers nearly 48,000 ha., of which 9,000 only are sandy lands, the remainder consisting of firmer land. While the "Wieringermeer" affords an excellent opportunity for satisfying the great demand for cultivable land which has made itself felt in recent years, the north-east polder will satisfy this demand even more fully. The works in progress give employment directly or indirectly to several thousand workers per annum.

The barrage costs of the Zuyderzee amounted to about 140,000,000 florins. The dyking of the "Wieringermeer" and of the "trial polder" required about 75,000,000. The north-east polder will require about 126,000,000 florins.

BELGIUM.

Attention should be drawn to the more special associations in the Flemish districts, existing side by side with the official agricultural associations: these are the polder and the *wateringue* associations. These terms have gradually acquired a special meaning. By *polders* is meant the coastal areas where dyking operations have been carried on, and by *wateringues* the inland districts protected against the waters of rivers and streams. The same name is given to the associations which undertake the work of dyking, irrigation and drainage.

The *polder* and *wateringue* associations, organized under the laws of June 18, 1846 and April 27, 1848, are considered as public bodies with legal rights. They may expropriate lands and levy taxes, but they act under the control of a permanent deputation.

Schemes to be executed by these associations must first be submitted for the approval of the competent Ministry. Subsidies are granted to the *wateringues* as a contribution to the expenses resulting from the carrying out of improvements of a hydrological kind on agricultural lands. By Royal Decree of June 30, 1938, subsidies have been granted to 20 *wateringues* rising from a minimum of 947 francs to a maximum of 90,000 francs.

(to be continued)

G. COSTANZO

THE SOCIAL INCOME OF AGRICULTURE IN EUROPE

SUMMARY: Introduction. — The development of social income in the following countries: Finland. — Sweden. — Norway. — Denmark. — Overijssel (Netherlands). — Scotland. — Solssonnais (France).

Introduction.

The crisis of 1930-33 was brought about by a rapid and widespread fall in the prices of agricultural products. As the prices of industrial commodities did not fall in the same degree, the farmers saw their profits melt away. The struggle for a livelihood was never so acute for the farming class as it was during that period.

Governments soon came to the help of the farmers. But what possibility was there of restoring agricultural incomes to a normal level? The public authorities had recourse to the means which led most rapidly to the end in view: they used every effort to raise the prices of the products of the soil. Protective barriers were placed around the frontiers; within the frontiers there was re-organisation both of production and of agricultural markets. Some Governments were satisfied with protectionism only; others went much further in the direction of intervention: controlling, directing, planning their agriculture: making a State regulated organisation of it. The object of the following articles is to examine how far these measures had the effect of increasing the incomes of the farmers.

The situation of the family farmer will be examined, as it was before during and after the crisis; how he emerged from the crisis; how far during these successive periods his share in the social, or the whole return from his farm, varied, or in other words, what was his share in the increased values contributed by his farm to the general economy.

The social income is divided between the operator, the farm workers, the creditors and the State. When times are hard, the farmer is not able to reduce that part of the social income which goes to his employees, to his creditors or to the Treasury, hence it is his own share which is diminished. In the light of the figures yielded by farm accountancy, the situation of the family farmer from 1927 to 1935 will be examined; then, after noting price fluctuations and the details of the necessary incomings and outgoings, it will be considered to what degree the prices of farm products should have been increased so that the small farmer would not be subjected to loss; or, in the other event, what profit those prices have allowed him.

Before entering on the subject, some brief remarks may not be out of place on the composition of the social income. The share which goes to third parties consists in the wages of employees, taxes and the interest on debts; the share left to the farmer consists in the fair wage claim (calculated, not actually taken) for the work of the farming family, as well the return on family capital, which is

obtained by deduction of the farming expenses including interest on debts from the gross return. The farmer's share is also called the operator's or agricultural income. It is equal to the sum which the farmer can spend without drawing on his own capital.

We shall now study the position in Finland, Sweden, Norway, Denmark, the district of Overijssel (Netherlands), Scotland, and a hundred farming enterprises in Soissonnais, France.

I.

Development of the social income in Finland, Sweden, Norway, Denmark, in Overijssel (Netherlands), Scotland and in Soissonnais (France).

FINLAND.

The first point to be noted, in examining graph I, is that the smaller the farm holding, the larger the social income per unit of area. This fact does not hold good for Finland only; it is one of general validity. It is only in countries where the heads of large farming undertakings have received a first-rate vocational training, where the small farmers are very backward and where co-operation is not yet fully established, that large farming may at times obtain better results than small farming.

From 1927-30 to 1930-33, the social income fell by 15 to 18 per cent. on farms of more than 25 ha.; and by 25 per cent. on farms of less than 25 ha, of area; in 1933-34 and in 1934-35 it rose. (Graph I).

The fluctuations in operator's income are much larger on the family farms than on large undertakings:

	Income passing to third parties in % of social income				Operator's income in % of social income			
	1927-30	1930-33	1933-34	1934-35	1927-30	1930-33	1933-34	1934-35
Farms of less than 10 ha. .	25.52	20.43	18.36	19.16	74.48	55.56	58.90	70.58
„ „ 10 to 25 ha. . .	37.96	29.92	27.29	28.63	62.04	46.41	51.72	61.86
„ „ 25 to 50 ha. . .	56.68	46.12	42.04	44.32	43.32	36.50	45.32	54.01
„ over 50 ha.	79.21	64.38	58.40	60.85	20.79	20.19	29.27	38.57

The return on own capital diminished by one half in 1930-33 on small family farms, while this return on large undertakings maintained the level of 1927-30. The explanation is that wages fell, and the large farms which employ wage labour on much a larger scale than the small farms were able to reduce very considerably the share of the social income which goes to employees.

There was no decline in taxes or in interest charges in 1930-33; on the contrary there was rather a tendency for them to increase. From 1930-33 to 1934-35

the fluctuations in the share of the social income which is divided between creditors, employees and the Treasury, were quite small. Much more considerable variations characterise the remaining share, the operator's income, these depending closely upon those in the return on owned or family capital. This latter showed marked improvement in 1933-34 and especially in 1934-35, owing both to lowered costs of production and to a rise in the gross returns.

From 1927-30 to 1934-35 production costs were reduced as follows:

TABLE I. — *Relation between gross returns and production costs.*

Year	Production costs		Gross return		Profit or Loss on total farm assets in % of gross return (1)
	Finnish marks per ha.	Index number	Marks per ha.	Index number	
Farms of less than 10 ha.:					
1927-30.	3821	100 —	3312	100 —	— 15.37
1930-33.	3173	83.04	2552	77.05	— 24.33
1933-34.	2894	75.74	2554	77.11	— 13.31
1934-35.	2915	76.29	2832	85.51	— 2.93
Farms of 10 to 25 ha.:					
1927-30.	2949	100 —	2570	100 —	— 14.75
1930-33.	2462	83.48	1968	76.58	— 25.10
1933-34.	2268	76.91	2047	79.65	— 10.80
1934-35.	2243	76.06	2220	86.73	— 0.63
Farms of 25 to 50 ha.:					
1927-30.	2797	100 —	2403	100 —	— 16.40
1930-33.	2304	82.37	1891	78.69	— 21.84
1933-34.	2180	77.94	2044	85.06	— 6.65
1934-35.	2122	75.87	2163	90.01	— 1.90
Farms of over 100 ha.:					
1927-30.	2889	100 —	2412	100 —	— 19.78
1930-31.	2361	81.72	1927	79.89	— 22.52
1933-34.	2249	77.85	2047	84.87	— 9.87
1934-35.	2193	75.91	2189	90.75	— 0.18

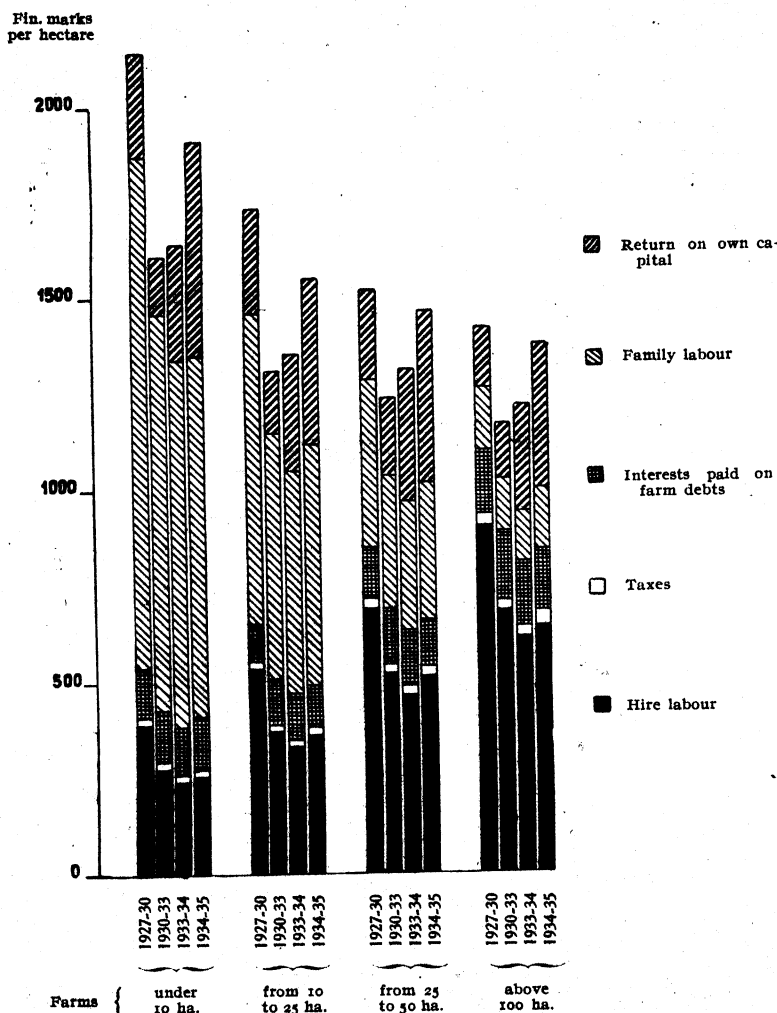
(1) The figures of last column show far the prices of agricultural products would have had to be modified for gross returns exactly to cover costs.

In 1930-33 the gross return fell so low as to endanger the whole position of the farmers. The public authorities realised the situation, and at once endeavoured to consolidate agricultural indebtedness. Consolidation loans were granted up to 70 per cent. of the value of farmed lands and to 30 per cent. on the value of movable property and of forests. The rate of interest was raised to 7 ½ per cent. These loans were exempted for ten years from the income and property taxes.

With the object of maintaining the market prices of dairy products, in December 1932 the Finnish Parliament passed a law establishing premiums on butter and cheese for export. Import duties and export premiums on animal products

were increased; imported margarine and cheeses were made liable to duty. With the advance in prices of animal products, cattle and pig numbers increase. Prices of milk increased by 0.6 per cent. from 1930-33 to 1933-34 and by 6 per cent. from 1933-34 to 1934-35.

GRAPH I. — *Finland - Social Income.*



Since in Finland cereal growing represents only one sixth of the gross return, and as milk is the pivot of agricultural production, the gross return rose and in 1934-35 almost reached the pre-crisis level (Table I).

Prices of Agricultural Products in marks.

Products		1927-30	1930-33	1933-34	1934-35
Milk	10 kg.	16.60	12.40	12.50	13.50
Butter	10 "	306 —	216 —	208 —	227 —
Cheese	10 "	171 —	119 —	150 —	130 —
Oxen	10 "	85 —	54 —	56 —	70 —
Pigs	10 "	125 —	87 —	90 —	81 —
Eggs	10 "	—	149 —	120 —	116 —
Wheat	100 "	—	245 —	255 —	250 —
Rye	100 "	238 —	209 —	195 —	205 —
Barley	100 "	200 —	171 —	175 —	160 —
Oats	100 "	158 —	116 —	119 —	113 —
Potatoes	100 "	73 —	48 —	42 —	45 —

With increasing receipts and diminishing costs, the farmer in 1934-35 came out without loss. Whereas in 1930-33 an increase of from 20 to 25 per cent. was needed in the prices of agricultural products, in 1934-35 no higher increase was required than one ranging from 0.18 to 3 per cent. In that year in fact prices made it possible for farms of from 23 to 50 ha. to clear a small profit. The following is the position, per hectare, of the margin of net return in 1930-33 and in 1934-35 (1):

Profit or Loss on total farm assets in marks per ha.

	In 1930-33		In 1934-35	
Farms of less than 10 ha.	—	621 (loss)	—	83 (loss)
„ „ 10 to 25 ha.	—	494 „	—	14 „
„ „ 25 to 50 ha.	—	413 „	+	41 (profit)
„ over 50 ha.	—	434 „	—	4 (loss)

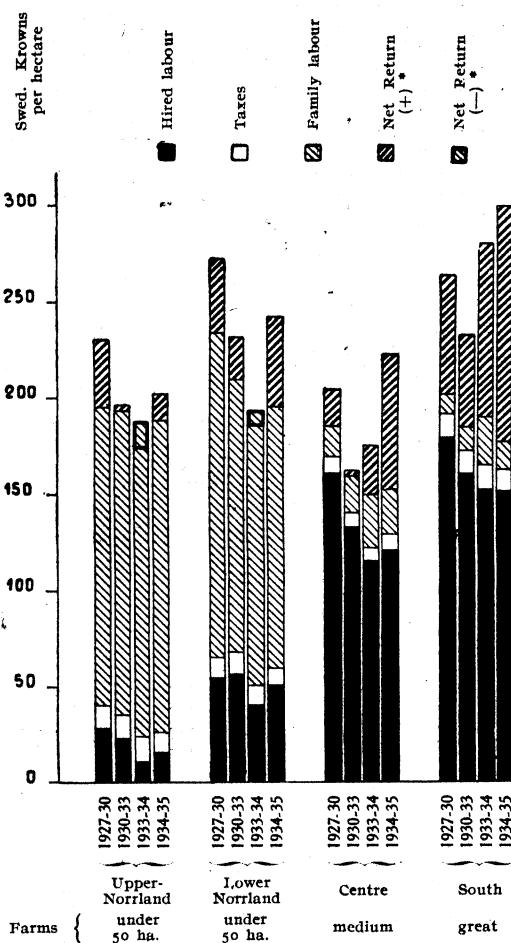
SWEDEN.

Swedish agriculture is grouped by regions, each of which has strongly marked characteristics. In Norrland the importance of agriculture does not lie in the extent of land under cultivation; the areas cropped account only for 1.8 per cent. of the total area, with 4 per cent. in natural meadows. Cereals are represented

(1) The profit or loss on total farm assets, obtained by subtracting from the cost of production (farming expenses plus interest charges on capital), shows the margin between the net return and that which the operator would have obtained if he had invested his capital in State bonds, at the usual rate. It represents the profit (+) or loss (—) made by the family or small farmer.

by barley, with a little rye and oats. Potatoes do well everywhere, but the agricultural wealth of Norrland is in livestock and the production of hay, which amounts to nearly one third of the whole production of Sweden. As there are

GRAPH II. — *Sweden - Social Income.*



* Return on own capital plus interests paid on debts.

scarcely any pigs and no wheat at all, the industrialised part of Norrland imports large quantities of cereals, of flour and of bacon, not to mention groceries.

On the fertile plains of Central Sweden, which extend along the great lakes, the climate is so mild that there is a certain surplus of exportable barley and

oats. There is too in this region a more even balance between cereal cultivation and pasture, and both wheat and sugar beet are grown. The return from root crops and cereals amounts to 30 per cent. of the total gross return.

In Southern Sweden, owing to the low altitude and the influence of the Atlantic, there is a mild climate and an abundant rainfall; wheat, rye, sugar beet, fodder, beets, etc. do well and give very high yields. A balance is maintained between arable and live stock farming.

It is surprising therefore to find that the social income of the farms of Central Sweden was in 1927-30 lower than that of Upper and of Lower Norrland. The explanation lies in the fact that during that period, while expenses were equal, the gross return of the farming in Central Sweden was lower (Table II). On the other hand, the farms of Central Sweden showed more resistance to the crisis conditions. Actually, while in Norrland the interest return on own capital fell below zero in 1933-34, it rose in Central Sweden. The situation of the farmers of Central Sweden so much improved in 1934-35 that the social income exceeded by 18 crowns per ha. the figure of 1927-30.

In Southern Sweden, after having fallen by 12 per cent. in 1930-33, the social income advanced so as to exceed by 17 crowns (per ha.) in 1933-34 and 35 crowns in 1934-35 the figure of 1927-30. The cultivator himself benefited by these favourable circumstances, as the increase in cost of wage labour was small in comparison with the rise in the return on own capital, and, in this way, in the operator's income.

Prices of the principal agricultural products.

(in crowns per 100 kg.).

Products	1927-30	1930-33	1933-34	1934-35
Wheat	20.10	18.35	17 —	16.80
Rye	18.85	16.20	15.50	15.80
Barley	17.10	12 —	11.90	13 —
Oats	14.45	10.15	10.90	12.15
Potatoes	12.40	7.60	5.95	6.80
Sugar beet	2.54	2.44	2.61	2.30
Butter	288 —	194.50	228 —	230 —
Cheese	142 —	103.90	109 —	116 —
Milk	21.90	20.70	21 —	21 —
Oxen	61 —	46 —	40 —	51 —
Pigs (from 75 to 100 kg.)	104 —	63 —	52 —	69 —
Eggs	149.55	105.20	91 —	108 —

It is in Upper Norrland that the recovery has been slowest: here, as already shown, farming has few resources.

This return to former conditions had been made possible only by the intervention of the State. One of the most important measures taken by the Swedish

Government for the protection of agriculture was the law of 1931 setting up the cereal monopoly. Another important measure was the levying of general and local charges on milk and cream, so as to raise the prices of butter and cheese on the national market and to equalise the prices of milk for direct consumption and for manufacturing purposes.

In 1933-34 and 1934-35 there were rises in the prices of the most important agricultural products, oats, butter, cheese and milk.

In 1934-35, the prices of cattle, pigs and eggs began to rise also.

The effect on the gross return of the rise in prices of agricultural products become noticeable in 1934-35.

Production costs declined steadily till 1934-35. For the farmer of Upper Norrland to win through without loss in 1934-35, the prices of his products would have had to rise by much more than in 1927-30: the gross return remained too low. In Lower Norrland, to attain this result, it would have been enough for prices to rise by 7.10 per cent., while a year before they would have had to rise by 29.15 per cent. In Central Sweden, the family farmer realised in 1934-35 a small profit: 10 crowns per ha. In the South he realised a profit of one crown per hectare in 1933-34 and 33 crowns in the following year.

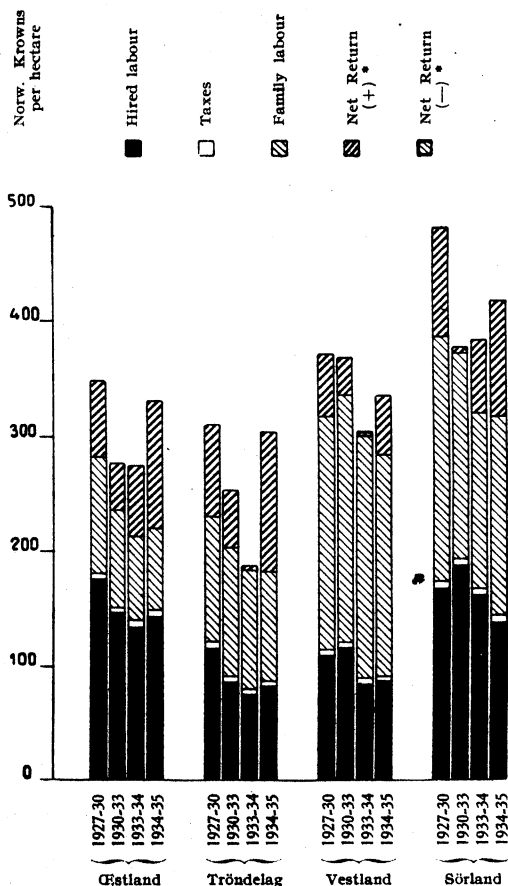
TABLE II. — *Relation between Gross Returns and Production Costs in Sweden.*

Year	Production costs		Gross Return		Profit or loss on total farm assets in % of gross return
	In crowns per ha.	Index number	In crowns per ha.	Index number	
Upper Norrland:					
1927-30	387	100 —	338	100 —	14.50
1930-33	378	97.67	299	88.46	26.42
1933-34	366	94.57	277	81.95	32.13
1934-35	357	92.25	303	89.64	17.82
Lower Norrland:					
1927-30	433	100 —	379	100 —	14.25
1930-33	414	95.61	346	91.29	19.65
1933-34	390	90.07	302	79.68	29.15
1934-35	407	93.99	380	100.26	7.10
Central Sweden:					
1927-30	426	100 —	368	100 —	15.76
1930-33	376	88.26	305	82.88	23.28
1933-34	347	81.45	306	83.15	13.40
1934-35	347	81.45	357	97.01	2.80
Southern Sweden:					
1927-30	542	100 —	489	100 —	10.84
1930-33	488	90.04	426	87.12	14.55
1933-34	459	84.69	460	94.70	0.22
1934-35	452	83.39	485	99.18	6.80

NORWAY.

No country in Europe has a smaller area under cultivation than Norway. Before the war the area of arable land did not exceed 7,500 square km. out of 323,000 square km. There were also 2,800 square km. of natural meadows and farming land not under arable crops, and some 10,000 square km. of temporary mountain or seashore pasturage.

GRAPH III. — Norway — Social Income.



* Return on own capital plus interests paid on debts.

There were however considerable unexploited resources, and it will be seen how, when the world crisis was at its height, the authorities were able to induce farmers to extend arable cultivation.

From 1920 onwards, Norwegian farmers have tended to abandon cereal cultivation; they have instead extended pastureland with a view to increasing stockfarming and dairying. Butter and cheese factories have been established in large numbers on a co-operative basis. Not more than 1.5 per cent. of the cultivated land is under wheat; the principal cereal is oats, a crop favoured by the moist climate and occupying 15 per cent. of the arable land. Barley and oats meslin is wide spread. Fruit growing is limited to the low lying valleys of Østland and the sheltered fjords of the South-West.

The climate of Østland is less rainy and more continental than that of the other regions of Norway. The social income is higher than in Trøndelag, as the Østland farmer obtains gross returns per ha. 100 crowns higher than those yielded by land in Trøndelag (Table III).

There is almost no forest on the west coast, but in Østland there are immense forests with a great influence on trade and industry, thereby stimulating the growth of towns and generally affecting rural life.

Passing from the relatively low lying lands of Trøndelag to the mountain block of Vestland, the social income leaps up by 60 crowns per ha. and returns are higher. The most favourable conditions, however, are found in Sörland, that is in the Southern plateau, where the gross return exceeds by 200 crowns per ha. that obtained in Østland (Table III).

The profitableness of Norwegian agriculture is determined by the price of milk. In 1930-33 and especially in 1933-34 the fall in the social income was due to the lower prices of milk. In Vestland the net return fell in 1933-34 even below zero (See Graph III). In Sörland, the crisis was at its height in 1930-33. In the following year, net return and social income rose; the production of milk was intensified and milk prices did not fall so low as in Trøndelag and Vestland.

Years	Milk prices in öre per litre				Litres of milk yielded per ha.			
	Østland	Trøndelag	Vestland	Sörland	Østland	Trøndelag	Vestland	Sörland
1927-30	19.5	16.6	16.2	19.3	1291	1201	1237	1603
1930-33	15.4	13.5	12.7	14.3	1206	1226	1125	1915
1933-34	13.0	11.7	11.1	12.8	1572	1122	1401	2007
1934-35	13.8	12.2	11.8	13.5	1672	1176	1329	2046

Owing to the same favourable conditions the social income was maintained in 1933-34 in Østland at the level of 1930-33, and the net return advanced. The decline in the gross return as shown in the accompanying table (Table III) is less rapid than that of the cost of production, so much so that in 1933-34 production costs decline in a much larger proportion than the gross return. Everywhere else in 1933-34 the gross return falls lower than the costs.

In view of the ruin threatened to stock farming by the price decline, the Government took measures for the co-operative organisation of all milk sales.

TABLE III. — *Relation between Gross Returns and Production Costs, in Norway.*

Years	Production costs		Gross return		Profit or loss on total farm assets in % of gross return
	In crowns per ha.	Index number	In crowns per ha.	Index number	
Østland:					
1927-30	796	100 —	665	100 —	— 19.67
1930-33	694	87.19	561	84.25	— 23.85
1933-34	645	80.97	543	81.56	— 18.82
1934-35	661	83.06	614	92.24	— 7.75
Trøndelag:					
1927-30	622	100 —	537	100 —	— 15.93
1930-33	552	88.75	450	83.80	— 22.61
1933-34	507	81.51	367	68.34	— 38.15
1934-35	491	78.94	477	88.83	— 2.94
Vestland:					
1927-30	706	100 —	583	100 —	— 21.01
1930-33	774	109.63	616	105.66	— 25.71
1933-34	680	96.32	514	88.16	— 32.51
1934-35	646	91.50	542	92.97	— 19.06
Sörland:					
1927-30	1,039	100 —	882	100 —	— 17.84
1930-33	1,012	97.40	765	86.73	— 32.33
1933-34	922	88.74	737	83.56	— 25.10
1934-35	985	94.80	854	96.82	— 15.32

By a law of 1931, a National Office of milk producers was established, with 8 regional offices. More than 90 per cent. of milk producers came into the scheme. The aim of the Office is to equalise the difference between the prices of milk for direct consumption and those of manufacturing milk. The price of the latter was 12 öre, plus one and a half of subsidy levied on the competing industry of margarine. Milk sold as milk is 22 öre the litre. These average prices vary only with the fat content of the milk.

Selling prices to the consumers vary with the locality, but the equalisation operations between the offices ensure a uniform price for all producers. At the same time (1931) as this raising of milk prices was effected, the Government made compulsory for margarine manufacturers an admixture of 20 per cent. of butter.

Offices on similar lines have been established for pigs, meat, eggs., etc. Norwegian prices are now higher than world prices, and exports are only for the purpose of relieving the market of surpluses.

The cereal monopoly came into existence in 1928. It is a monopoly of cereals imports but also purchases Norwegian cereals at a certain excess price. As the trade in cereals is thus carried on more cheaply than it would be by private importers, the price of bread has not increased. The excess price has stimulated

the farmers to extension of cropping, and the production of Norwegian cereals has gone up from 250,000 to 350,000 metric tons.

Internal land settlement has been encouraged by the Government. To every land worker establishing himself on virgin lands which are arable but await clearing (formerly some 6000 square km.), the State makes a grant up to 7,500 crowns. During the first five years no interest is payable on the loan; afterwards 5 per cent. per annum has to be paid. A second loan of 2,100 crowns for the construction of the necessary farm buildings is also made by the State; in addition the settler is remunerated for his work. Up to the present 50,000 new farms have been established; others will be established during the next ten years. The social income of Norwegian agriculture will increase proportionately.

Under the twofold influence of the policy of revalorisation and of world recovery, the rise in prices was considerable in 1934-35. Milk prices increased by from 4.3 to 6.3 per cent.; prices of beef by 24 per cent.; pigmeat by 2 per cent.; butter prices by 6 per cent.; prices of rye and wheat by 22 and 26 per cent. respectively.

Production costs also rose in 1934-35 but the increase in the gross return was such that the net return was higher than in 1927-30 (Graph III), and in consequence the share of the social income remaining in the hands of the farmer was much larger than he had secured in 1933-34. The situation did not however prove entirely favourable to the farmers. Prices of products had not gone up enough to compensate for the high cost of manufactured commodities; such compensation would have necessitated a further rise of 3 per cent. in Trøndelag, of 7.75 in Østland, of 15.30 in Sörland, and of 10 per cent. in Vestland.

The results of the steady and rapid advance in prices of agricultural products will appear later. It is known that the wholesale prices of animal products rose from 113 points in 1934 to 147 in 1937, while those of crop products advanced in the same period from 118 to 178.

DENMARK.

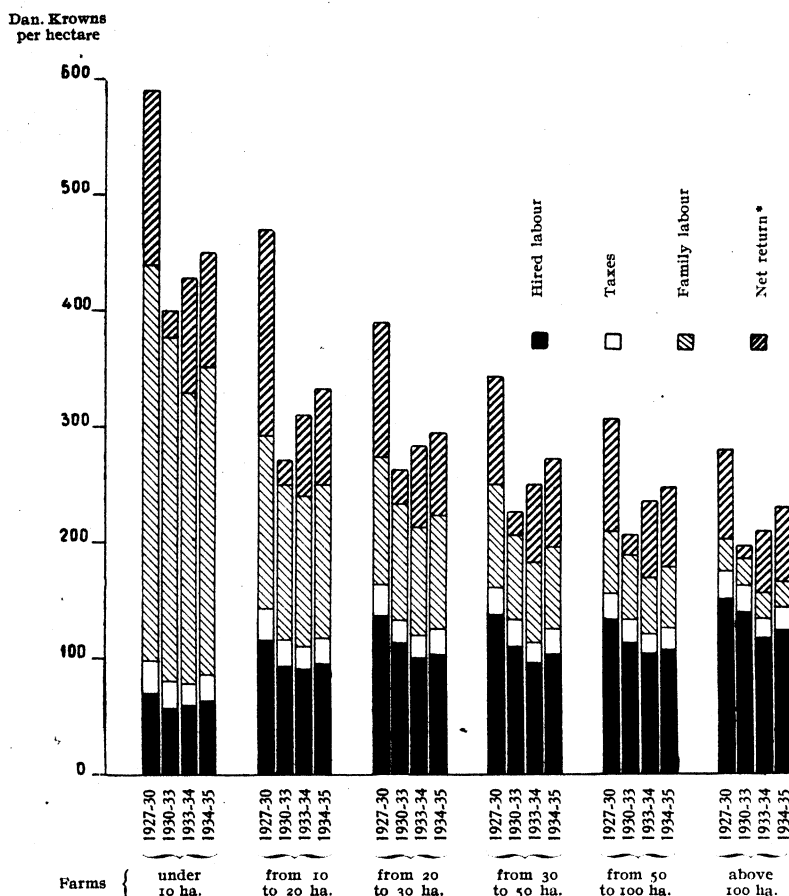
The position of Denmark is less oceanic than that of Norway and less continental than that of Sweden. The climate is transitional in character and allows of both arable and grassland cultivation.

Owing in part to these natural conditions, in part to its close association with external trade, Danish agriculture has achieved an extraordinary development. In this respect, it is comparable only to the agriculture of the Netherlands. Small as Denmark is, she has supplied as much as one third of the butter sold on the world market. In addition there is production on a large scale of bacon, ham and eggs with a view to export.

For a long time farmers relied rather on unofficial organisation than on Government intervention. It was not till 1930 that strict measures were taken to regulate the sale of eggs and bacon and the delivery of milk. The checking of milk by means of reductase was rendered compulsory, and also the payment of milk products according to quality. No price policy was decided on till the

end of 1932, when Great Britain and Germany took strict measures for limiting the imports of Danish animal products. A law was promulgated giving to the Minister of Agriculture the power of fixing two price levels for pigs, one, higher, for pigs which would be sent to the United Kingdom or which were intended to

GRAPH IV. — *Denmark - Social Income.*



* Return on own capital plus interests paid on debts.

meet the normal requirements of the country, the other for surplus animals. The following year came regulation of the trade in wheat, in butter and in margarine, as well as in pig production. The Ministry of Agriculture was empowered to levy on imported cereals and flours a tax which allows a minimum price of 11 crowns per 100 kg. and a maximum of 13, to be fixed for wheat. The Ministry of Agriculture was also empowered to levy on all butter sold in the national market

a charge of 35 øre per kg. so as not to allow butter prices to fall below 2 crowns 10 øre per kg.

Prices of animal products rose as from 1934-35.

Prices in crowns per 100 kg. of animal products.

Products	1927-30	1930-33	1933-34	1934-35
Milk as milk	15.02	10.16	9.11	10.35
Butter	284—	185—	161—	180—
Bacon	123—	87—	141—	162—
Oxen, live weight	67—	40—	24—	38—

TABLE IV. — *Relation between Gross Return and Production Costs in Denmark.*

Years	Production costs		Gross return		Profit or loss on total farm assets in % of gross return
	In crowns par ha.	Index number	In crowns par ha.	Index number	
Farms of less than 10 ha.:					
1927-30	1,250	100 —	1,242	100 —	— 0.64
1930-33	1,014	81.12	888	71.50	— 14.19
1933-34	833	66.64	792	63.77	— 5.18
1934-35	872	69.76	841	67.71	— 3.69
Farms of 10 to 20 ha.:					
1927-30	847	100 —	843	100 —	— 0.47
1930-33	679	80.16	590	69.99	— 15.08
1933-34	602	71.07	571	67.73	— 3.40
1934-35	618	72.96	604	71.65	— 2.32
Farms of 20 to 30 ha.:					
1927-30	777	100 —	778	100 —	— 0.13
1930-33	644	82.88	566	72.75	— 13.78
1933-34	533	68.60	512	65.81	— 4.10
1934-35	528	67.95	514	66.07	— 2.72
Farms of 30 to 50 ha.:					
1927-30	703	100 —	691	100 —	— 1.74
1930-33	564	80.23	487	70.47	— 15.81
1933-34	462	65.72	449	64.98	— 2.89
1934-35	482	68.56	475	68.74	— 1.47
Farms of 50 to 100 ha.:					
1927-30	613	100 —	604	100 —	— 1.49
1930-33	496	80.91	427	70.69	— 16.16
1933-34	422	68.84	415	68.71	— 1.69
1934-35	449	73.25	442	73.18	— 1.58
Farms of over 100 ha.:					
1920-30	542	100 —	529	100 —	— 2.46
1930-33	469	86.53	391	73.91	— 19.95
1933-34	388	71.59	369	69.75	— 5.15
1934-35	411	75.83	401	75.80	— 2.49

The prices of bacon had already begun to rise in 1933-34, the advance was even so abrupt that prices stood above the level reached in 1927-30. However, it was only in 1934-35 that the decline in the gross return ceased. (Table IV).

In spite of the intensive effort made by the Danish farmers to get the maximum out of the soil they cultivate, the crops are not sufficient to feed the exceptional - abnormal - number of animals of high economic return which Denmark possesses. Each year the farmers buy from other countries more than 20,000,000 quintals of cereals and of stocks feeds. On the other hand the arable cultivation itself required a supply of cake and other artificial fertilisers obtained only in part from the the national industry. This industrialised agriculture also involves production costs which cannot easily be reduced. These costs declined in 1933-1934 in smaller proportions than the gross return, and in 1934-35 rose more markedly than the gross return. Prices in 1934-35 were still far from being high enough to bring the gross return above the level of costs of production. However as shown in Table IV, Danish agriculture is apparently rapidly reverting to normal conditions:

The decline in the farming expenses in 1933-34 was proportionately greater than that in other expenses. In spite of the fall in prices and in gross return, the social income increased (1).

Of all costs of production the interest charges on capital declined least in 1933-34, since the net return (Graph IV) increased more markedly than the profit (or loss) on total farm assets (Table IV). Wages fell considerably after 1927-30 (Graph IV). The operator's income recovered after the serious decline in 1930-1933 but in 1934-35 still remained much behind the level of 1927-30.

NETHERLANDS (OVERIJssel).

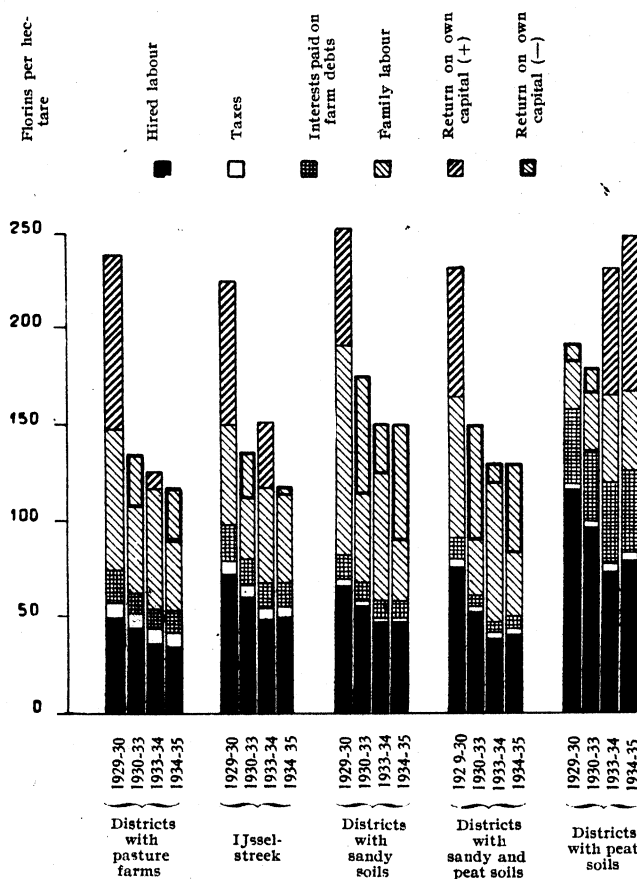
Overijssel is part of the continental region of the Netherlands, where the chief feature consists in sand and gravel terraces covered with heathlands and woods. The small farm is the dominant factor in the rural economy, and the farming is of mixed type with close association between stock and arable farming. Among cereals rye takes the first place, and is harvested at the beginning of August, being replaced by a catch crop of turnips. This latter crop is essential on the small farms which have little hay. Besides rye and turnips there are potatoes, oats, buckwheat and some forage crops. The fertility of the land is ensured by the large production of livestock, and this is especially true of the sandy districts. In the grazing districts arable crops are not of so much importance, representing only 5 per cent. of the gross return; in the marshy districts there is practically no livestock, and products of stock farming do not represent more than 4 per cent. of the gross return.

(1) The social income is obtained by deducting from the gross return the expenses of replacement of capital used and the current expenses of management.

It was in the sandy districts that, before the crisis, the farmers obtained the highest social income and in consequence the highest gross return. But it was also in those districts that the crisis lasted longest and was most severe (Graph V).

In the grazing districts and in IJsselstreek the interest on own capital which had disappeared in 1930-33 reappeared in 1933-34; but in the following year it again dropped to zero. In the sandy districts, as well as in the sandy and peat

GRAPH V. — *Netherlands (Overijssel) — Social Income.*



districts, the gross return from 1929 onwards, remained so low, in relation to the farming expenses, that the operator's income was not large enough to remunerate the work of the farming family. If this situation was prolonged, the farmer had to choose between two alternatives; a dangerous reduction in his way of living, abandonment of all attempts at upkeep or repair of his buildings and equipment, or to encroach on his capital and to incur debt. The position of the farmer

Prices in florins of a certain number of agricultural products.

Products	1927-30	1931-32	1933-34	1934-35
Wheat qm.	10.17	12.50	12.13	11.82
Rye "	9.41	5.02	6.26	7.37
Barley "	10.04	5.80	4.33	5.32
Oats "	9.23	5.75	4.99	6.17
Beef "	101.20	76.68	57.71	55.92
Pigmeat. "	73.86	35.20	35.92	33.37
Butter "	204.80	114.79	53.15	44 —
Gouda "	103.11	62.70	48.64	39.34

in the marshy districts was very precarious from 1929 to 1932; in 1933, recovery suddenly set in. What had happened was this: in 1931 the Government took

TABLE V. — *Relation between Gross Return and Production Costs in the Netherland (Overijssel)*

Year	Production costs		Gross return		Profit or loss on total farm assets in % of gross return
	In florins per ha.	Index number	In florins per ha.	Index number	
Grazing districts:					
1929-30	403.95	100 —	393.23	100 —	— 2.73
1930-33	322.64	79.87	206.65	52.55	— 56.13
1933-34	267.81	66.30	210.26	53.47	— 27.37
1934-35	264.83	65.56	171.84	43.70	— 54.12
IJsselstreek:					
1929-30	437.52	100 —	412.23	100 —	— 6.13
1930-33	337.94	77.24	227.04	55.08	— 48.85
1933-34	290.68	66.44	260.09	63.09	— 11.76
1934-35	283.52	64.80	215.96	52.39	— 31.28
Sandy districts:					
1929-30	532.06	100 —	528.27	100 —	— 0.72
1930-33	420.29	78.99	299.17	56.63	— 40.49
1933-34	350.22	65.82	279.99	53 —	— 25.08
1934-35	343.07	64.48	236.60	44.79	— 45 —
Sandy and peat districts:					
1929-30	472.23	100 —	451.97	100 —	— 4.48
1930-33	354.19	75 —	220.97	48.89	— 60.28
1933-34	281.42	59.59	226.20	50.05	— 24.41
1934-35	274.56	58.14	184.36	40.79	— 48.93
Marshy districts:					
1929-30	478.73	100 —	402.63	100 —	— 18.90
1930-33	370.45	77.38	306.28	76.07	— 20.95
1933-34	286.55	59.86	319.50	79.35	10.31
1934-35	299.49	62.56	348.58	86.57	14.08

measures to raise the price of wheat which was fixed at 12.50 florins the 100 kg. on the farm. To meet the supplementary expenditure entailed by this assistance to wheat growers, the importer pays, at the time of importation, 2.50 florins per quintal. As in the marshy districts, crops are the pivot of the farming, the gross return considerably increased; the rise in wheat prices bringing with it a rise in the prices of other cereals.

The prices of animal products, however, which are insufficiently protected, fell continuously; butter prices showed the most marked decline, decreased by four-fifths almost from 1927-30 to 1934-35. In these conditions it can be understood why farmers who settled on poor lands, and are engaged almost exclusively in dairy production, obtained such meagre results from 1927-30 onwards.

Cost prices also fell, but in a much less proportion than the selling prices, as appears from the accompanying table:

Capital engaged in agriculture would have yielded a normal interest in 1934-1935, and the farmer would have won through without loss, if the prices of agricultural products had risen by 54 per cent. in the grazing districts, by 49 per cent. in the sandy and peat districts, by 45 per cent. in the sandy districts, and by 31 in IJsselstreek. In the marshy districts they were high enough to allow a considerable profit.

The following was the situation of the farmers of Overijssel from 1929 to 1935:

Profit or Loss in florins per ha.

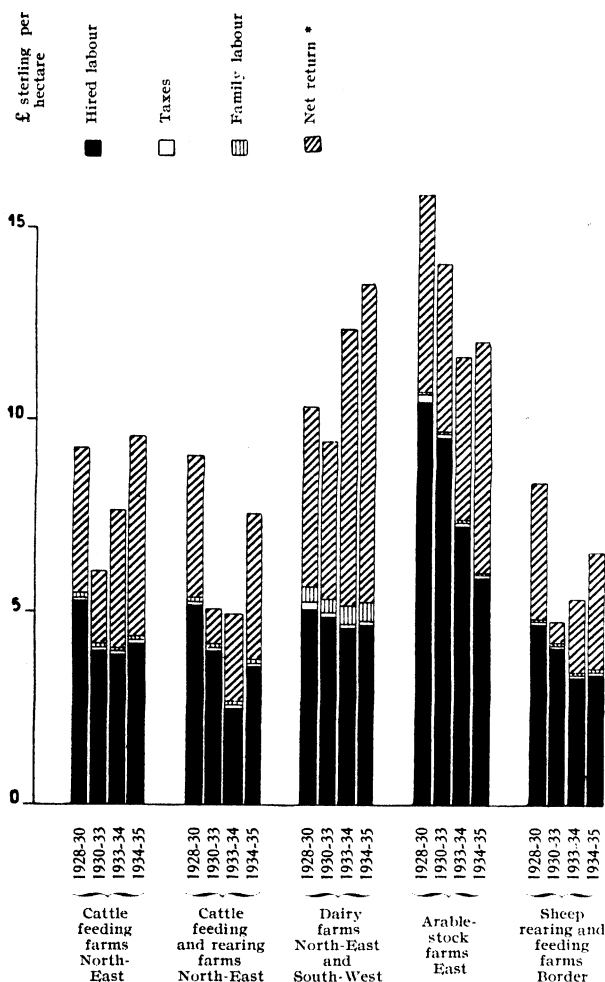
Districts	1929-30		1930-31		1933-34		1934-35	
	Profit	Loss	Profit	Loss	Profit	Loss	Profit	Loss
Grazing districts . .	—	10.72	—	115.99	—	57.55	—	92.99
IJsselstreek	—	25.29	—	110.90	—	30.59	—	67.56
Sandy districts . . .	—	3.79	—	121.12	—	70.23	—	106.47
Peat districts	—	20.26	—	133.22	—	55.22	—	90.20
Marshy districts . . .	—	76.10	—	64.17	32.95	—	49.09	—

SCOTLAND.

Agriculture in Great Britain does not depend for its prosperity on exports, as does the agriculture of the Scandinavian countries and the Netherlands. The rural exodus, and the extreme development of industry, have long upset the balance between the capacity of food production and the consumption capacity of the population. The United Kingdom imports 80 per cent. of the wheat consumed, 45 per cent. of the meat, 57 per cent. of the butter, 67 per cent. of the cheese, 44 per cent. of the poultry. If there has been a desertion of the fields for the factory, those who remain faithful to the soil have neglected nothing to adapt production to market requirements and to obtain the best yield from every producing unit. The work of the British farmer is among the best planned sources of income, and, per unit of area, one of the most remunerative there is.

British agriculture suffered from the crisis, and Government intervention and assistance were necessary. Although there were no foreign markets to re-

GRAPH VI. — *Scotland — Social Income.*



* Return on own capital + interests paid on debts.

conquer, protection was necessary against the dumping of foreign products while keeping up the prices of British products. A study will be made here of five groups of Scottish farms, before, during and after the crisis.

Before the crisis, on two groups of farms of the North-East engaged in cattle feeding and rearing, as well as on Border farms engaged in sheep farming, the social income varied around under £ 4 the acre.

The dairy farms of the North East and of the South West yielded a social income of more than £ 10 per hectare (about £ 4 the acre), and the mixed farms of the East which have a drier soil, and larger tracts of fertile land, have a social income of nearly £ 16 the hectare (£ 6-7 the acre). In the crisis the farms of the first three groups proved the least resistant; on the dairy farms and the mixed farms of the East the social income fell only to a small extent.

In 1933-34, the recovery was more or less strongly marked, except on the mixed farms of the East, where the social income was declining. This decline, it is true, did not affect the operator's income, as it was wage labour costs which decreased.

In 1934-35, recovery was general. The social income of the dairy farms even exceeded by 30.83 per cent. the figure of 1928-30. This satisfactory result was due to the increase in the gross return (Table VI) and to higher milk prices.

Index-numbers of prices of agricultural products

(1911-13 = 100).

Products	1928-29	1931-32	1933-34	1934-35
Wheat	131	79	(1) 125	(1) 114
Oats	131	101	82	96
Potatoes	127	230	107	129
Fat cattle	133	118	100	(1) 107
Fat sheep	157	110	120	130
Bacon pigs	150	92	112	106
Eggs	156	110	103	106
Milk	167	139	161	170
Wool	126	45	80	80

(1) Including the subsidies paid to growers.

In 1933, the Government of the United Kingdom entered into agreements with a certain number of foreign countries with the object of fixing quotas for the imports of dairy products; from April 1, 1934, under the Milk Act, 1934, advances were made by the Exchequer to Milk Marketing Boards to supplement the prices received by registered producers for manufacturing milk. For two years from April 1, 1934, the Government guaranteed the minimum price of 5d. per gallon in summer and of 6d. per gallon in winter for manufacturing milk.

In 1934 a fund, known as the Cattle Fund, was established, out of which subsidies were paid to producers in respect of cattle sold by them during a period beginning from September 1, 1934.

Meantime, the trade policy of Great Britain changed after 1932. In that year a form of moderate protectionism took the place of the traditional free trade policy. The Import Duties Act of February 29, 1932 imposed an *ad valorem* customs duty of 10 per cent. on a large number of commodities.

Another important Act was the Wheat Act, which came into force on March 12, 1932. The standard price of 45s. per quarter of wheat was fixed. The farmer who sells his wheat on the open market receives at the end of the year a "deficiency payment", that is, a sum equal to the difference between the standard price and the average price obtained by the grower.

In Scotland, as has been seen, this policy of quota fixing on imports and of maintenance of prices began to take effect in 1934-35. The rise in prices of certain products and the new subsidies to stock breeders increased the receipts of the farmers.

TABLE VI. — *Relation between Gross Return and Production Costs in certain Scottish farms.*

Years	Production costs		Gross return		Profit or loss on total farm assets in % of gross return
	In £ per ha.	Index number	In £ per ha.	Index number	
Farms engaged in:					
cattle feeding, North East:					
1928-30	14.32	100 —	14.95	100 —	4.20
1930-33	12.76	89.11	11.05	77.93	— 9.53
1933-34	12.54	87.57	12.75	85.28	1.60
1934-35	15.41	107.61	17.47	116.85	11.80
cattle feeding and rearing, North-East:					
1928-30	14.35	100 —	15.01	100 —	4.40
1930-33	11.72	81.67	9.82	65.42	— 19.35
1933-34	8.22	57.28	8.47	56.43	3.01
1934-35	12.77	88.99	13.58	90.47	5.90
dairy farming in North-East and South West:					
1928-30	19.36	100 —	21.24	100 —	8.85
1930-33	17.69	91.37	18.80	88.51	5.90
1933-34	19 —	98.14	22.58	106.31	15.83
1934-35	19.87	102.63	24.65	116.05	19.40
arable-stock farming, East:					
1928-30	32.03	100 —	30.77	100 —	— 4.09
1930-33	27.44	85.67	26.04	84.63	— 5.38
1933-34	22.20	69.31	22.04	71.63	— 0.73
1934-35	20.46	63.88	22.34	72.60	8.40
sheep farming, Border:					
1928-30	15.03	100 —	15.09	100 —	0.40
1930-33	12.78	85.03	10.25	67.93	— 24.68
1933-34	11.04	73.45	10.44	69.18	— 5.78
1934-35	11.37	75.65	11.98	79.39	5.10

The increase of the gross return is especially marked on the farms engaged in cattle feeding and rearing and on the dairy farms.

In 1934-35, the prices of agricultural products were high enough to allow the farmers to secure an appreciable profit.

Profit or Loss on Total Farm Assets per ha. in £ sterling.

	1928-30		1930-33		1933-34		1934-35	
	Profit	Loss	Profit	Loss	Profit	Loss	Profit	Loss
Farms engaged in:								
cattle feeding, North East	0.63	—	—	1.11	0.21	—	2.06	—
cattle feeding and rearing, North East dairy farming, North-East, South-West	0.66	—	—	1.90	0.25	—	0.81	—
arable-stock farming East	1.88	—	1.11	—	3.58	—	4.78	—
sheep farming, Border	—	1.26	—	1.40	—	0.16	1.88	—
	0.06	—	—	2.53	—	0.60	0.61	—

SOISSONS (FRANCE).

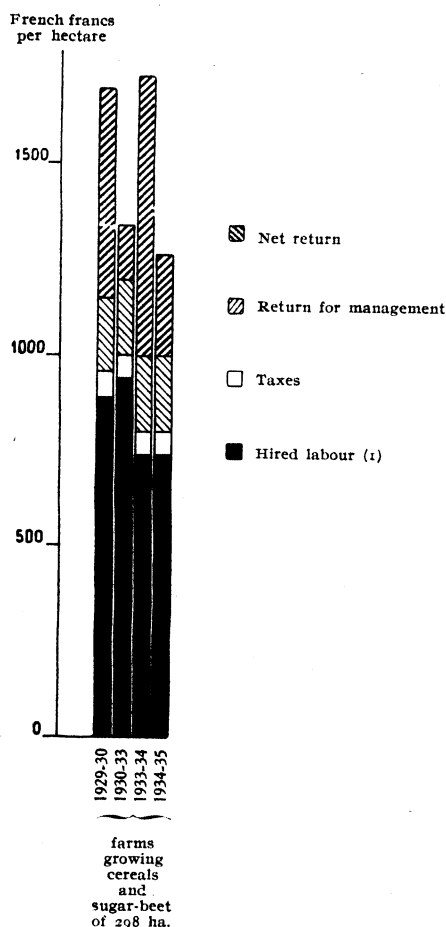
The farms now considered are situated in one of the most populous parts of France, in close proximity to large industrial centres. The farming is necessarily of the kind called intensive: 38.20 per cent. of the cultivated area is devoted to cereals, 23.80 per cent. to sugar beet and 13.20 to industrial crops. The cultivators are mainly tenant farmers who as a rule have no debts beyond the ordinary current liabilities.

In 1930-33 net return and social income decreased very markedly; in 1933-34 they rose above the pre-crisis level (1929-30), to drop again in 1934-35, the net return not so low as and the social income lower than in 1930-33 (because labour costs were reduced).

Products	Year 1929-30 Crop 1929	Year 1930-33 Crops 1930-32	Year 1933-34 Crop of 1933	Year 1934-35 Crop of 1934
Sugar beet:				
Yield in m. tons	29.313	34.587	31.143	37.558
Price per ton in francs	194.89	157.72	171.21	121.84
Gross return, francs	5,713 —	5,455 —	5,332 —	4,576 —
Wheat:				
Yield in quintals	31.32	25.55	35.32	34.98
Price per q., francs	135.63	132.25	114 —	81.83
Gross return, francs	4,248 —	3,379 —	4,026 —	2,862 —

The years 1933, 1934 and 1935 were the years of deflation, during which wages were reduced by Government action. As these Soissonnais farms depend chiefly on sugar beet and wheat, we give the gross returns per hectare of these crops during the years and the prices obtained by the farmers.

GRAPH VII. — *Soissons (France) - Social Income.*



(i) Including family labour.

Owing to the higher price of sugar beet, and to the abundant crops of wheat, the total gross return was higher in 1933-34. Production costs fell, and the farmer did pretty well. But in 1934-35 prices fell too low and farming again become scarcely profitable.

TABLE VII. — *Relation between Gross Returns and Production Costs in the Soissonnais.*

Year	Production Costs		Gross Return		Profit or loss on total farm in % of the gross return
	In francs per ha.	Index number	In francs per ha.	Index number	
1929-30	3,544.78	100 —	3,546.16	100 —	0.04
1930-33	3,069.52	86.59	2,893.06	81.59	— 6.10
1933-34	2,706.26	76.34	3,154.34	88.95	14.21
1934-35	2,571.26	72.54	2,576.37	72.65	0.20

In 1930-33, prices should have risen by 6.10 per cent. The profits or losses of agriculture per hectare have been as follows:—

1929-30	1.38 francs
1930-33	— 176.46 »
1933-34	448.08 »
1934-35	5.11 »

In a forthcoming article the development of the social income in Switzerland, Germany, Austria, Hungary and Romania will be studied.

J. DESLARZES.

INTERNATIONAL CHRONICLE OF AGRICULTURE

GERMANY

The weather conditions at the beginning of the agricultural year 1937-38 were rather adverse but later, at the end of the spring and during the summer of 1938, they became so favourable that an exceptionally plentiful cereal crop was obtained. The production of fodder and root crops was also excellent. The good results of the cereal crops and a systematic building up of reserves made possible the abolition of certain restrictions that had been applied for the purpose of effecting economies in the consumption of bread cereals. In other fields also, the systematic building up of reserves had favourable effects on the supply of foodstuffs.

There was a serious shortage of labour in many areas at harvest time and the crop would not have been housed without the assistance of the Labour Service and the non-agricultural population.

The problem of agricultural labour is in the foreground everywhere, the more so since industry continued to attract workers even when there were no unemployed. In recent months there has been no unemployment except in Austria and even there it has been considerably reduced; at the end of August the number of registered unemployed there was 114,000 compared with about 600,000 in March. Moreover, there

were 400,000 foreign workers in the former territory of the Reich at the beginning of the summer.

The estimates of the *Institut für Konjunkturforschung* show that receipts from the sale of agricultural products continued to increase in 1937-38. The sums received by farmers reached a maximum in 1928-29 with 10.2 milliard RM. They fell to 6.4 milliards in 1932-33 during the crisis. The rise in agricultural prices secured by the National Socialist agricultural policy led to an increase in receipts, which in 1934-35 amounted to 8.3 milliard RM. But in that year the general rise in agricultural prices ceased. The increase in the agricultural receipts, which reached 8.7 milliards in 1935-36, 8.9 milliards in 1936-37 and finally 9.5 milliards in 1937-38, was practically entirely due to an expansion in agricultural production which had been accelerated by a number of measures. Farming costs in 1937-38 are not yet known but the various categories of costs, so far as can be seen at present, suggest that these costs have increased in at least the same proportion as and probably in a greater proportion than receipts. According to the index numbers calculated by the Reich Statistical Office, the ratio between the index of agricultural prices and that of the prices of the means of production has moved slightly in favour of agriculture. Other agricultural costs seem to have followed a different course, especially wages which have increased substantially owing to the shortage of agricultural labour.

*Prices of means of agricultural production
and of agricultural products in Germany.*

Agricultural years	Means of production	Products sold
	Average 1927-28-29 = 100	
1933-34	77.5	64.1
1934-35	77.9	71.8
1935-36	78.6	77.9
1936-37	77.8	77.1
1937-38	76.7	77.9

The decline in the index number of the prices of the means of production is largely the result of a fall in the prices of fertilizers, as the following figures show. It must be remembered, however, that agriculture has greatly increased its consumption of artificial fertilizers and, consequently, the fall in the prices of these products has only slightly reduced total costs.

*Index-numbers of the prices of fertilizers in Germany
(1913 = 100).*

	August	
	1936	1938
Potassic fertilizers	92.0	71.1
Phosphatic fertilizers	95.1	94.8
Nitrogenous fertilizers	47.8	37.0

The course of forced sales of agricultural holdings also shows the tendency towards stabilization. Owing to the law of indivisible succession of peasant properties and to the general improvement in the economic position, the number of sales has declined considerably since 1933. The decrease continued in 1938.

Consumption of fertilizers in Germany.

Agricultural Years	Nitrogen (N)	Phosphoric Acid (P ₂ O ₅)	Potash (K ₂ O)	Lime
	(in thousands of metric tons of net content)			
1913-14	185.0	555.0	490.0	—
1925-26	333.6	387.8	612.5	—
1928-29	432.3	531.0	764.3	—
1929-30	415.1	547.0	760.7	—
1930-31	355.4	474.1	688.4	—
1931-32	325.3	395.1	540.7	—
1932-33	351.0	399.0	615.7	1,072
1933-34	382.0	462.0	713.5	1,345
1934-35	425.0	545.0	816.5	1,356
1935-36	491.0	636.0	949.0	1,561
1936-37	570.0	606.0	941.0	1,553
1937-38 (1)	635.0	700.0	1,200.0	2,535

(1) Provisional figures.

Forced sales of agricultural and forest holdings in Germany (1).

Years	Number of holdings	Area sold (hectares)
1931	5,798	177,602
1932	7,060	153,770
1933	1,662	27,451
1934	1,518	28,462
1935	2,270	31,445
1936	1,972	20,498
1937	1,882	14,108

(1) Wirtschaft u. Statistik, 1938, No. 16.

I. — MEASURES AFFECTING MARKETS AND PRICES

Cereals.

Measures relating to the regulation of the cereals market in 1938-39 were published at the end of June and early in July 1938. A decree of June 29, 1938 (1) fixed prices and defined the regions in which they were to apply. The base prices differ only in the case

(1) Verkündungsblatt des Reichsnährstandes, 1938, No. 39-40.

of oats from those of 1937-38, prices of fodder oats having been increased by 8 marks per ton. Changes have been made in the graduation of the monthly increases in prices.

The details of the measures for the cereal year 1938-39 are contained in a decree of the Cereals and Livestock Feed Federation published on July 1, 1938. The new decree also contains the regulations relating to cereals, flours, all kinds of feed, legumes and bulky fodders (hay and straw). A minimum delivery quota is now imposed also on the producer for oats while previously the regulation provided for compulsory deliveries of bread cereals only, that is, wheat and rye.

As a result of the improvement in the prospective supply of cereals following the excellent crop of 1938 and the accumulation of large stocks, certain of the the restrictions which had been applied to the supply of cereals and bread were abolished as from October 1. Accordingly, milling with a lower percentage of rye was permitted and the regulation requiring the addition of 3 per cent. of potato starch to rye flour was abrogated. The rule requiring an addition of 7 per cent. of maize flour to wheat flour was replaced by one requiring an admixture of 4 per cent. of potato starch.

II. — MEASURES AFFECTING AGRICULTURAL ECONOMY IN GENERAL

Reduction of fertilizer prices.

Following a decree of March 23, 1937 (1) reducing the prices of nitrogenous and potash fertilizers, two decrees of July 7, 1938 fixed the prices and conditions of supply of lime intended to be used as fertilizer. These decrees provide mainly for a reduction in price for farms unfavourably situated from the standpoint of communications. The decree of July 7, 1938 fixed consumption prices free to delivery station and the permitted increases for retail sales.

Abolition of *fidei-commiss*.

A law on the abolition of *fidei-commiss* and other similar institutions was introduced on July 6, 1938. Efforts to eliminate *fidei-commiss* in Germany go back to the beginning of last century but until 1919 it had not been forbidden except in Oldenburg, the Palatine and in the historic district of the free town of Frankfurt. In other parts of Germany there was a tendency to form new *fidei-commiss*.

The constitution of 1919 declared, in principle, the abolition of *fidei-commiss* but the application of the principle was left to the various Länder which effected it in various ways. In Austria, however, until the Anschluss there had not been a general decision to abolish *fidei-commiss*. A law of July 2, 1929 declared abolished the *fidei-commiss* relating only to houses, goods, stocks and shares and a law of August 18, 1932 decreed the abolition of *fidei-commiss* overburdened with debt and those whose beneficiaries were collaterals beyond the third degree.

On January 1, 1938, as a result of activity aimed at eliminating *fidei-commiss*, the situation in the entire Reich was as follows:—

	Fidei-commiss	
	Number	Area in hectares
(1) Actually abolished	1,404	1,768,810
(2) In process of abolition	224	514,907
(3) Not yet affected by process of abolition	686	922,318
	<u>2,314</u>	<u>3,206,035</u>

(1) See the June issue of this Chronicle.

Of the 3,206,035 hectares (6.8 per cent. of the territory of the Reich) of property under *fidei-commiss* or similar institutions in Germany in 1919, 1,381,079 hectares consisted of woods and forests (10.8 per cent. of the wooded area of the Reich.) The percentage of the area of substituted properties varied considerably; it was 15 per cent. in Silesia, 2.7 per cent. in the Rhineland and 2 per cent. in Hanover. In Austria, there were in 1932, before the abolition of *fidei-commiss* had begun, 164 *fidei-commiss* with 292,717 hectares of land. There is no data available on abolition in the following years.

The objective of the new law of July 6, 1938 is the uniform abolition of *fidei-commiss* and other similar property still existing in the Reich. As from January 1, 1939, all *fidei-commiss* and similar properties become free with certain temporary reservations regarding the present holders. All rights of possible beneficiaries are annulled. Compensation is provided where the application of the new law is too severe. In future the only permitted restriction on agricultural property is that relating to hereditary property under the law of September 30, 1933. In certain conditions properties exceeding 125 hectares may be admitted as hereditary properties.

Organization of agriculture and regulation of markets in Austria.

By a decree of May 18, the law on *Reichsnährstand* was extended to Austria. Consequently, all persons engaged in agriculture, societies established for the encouragement of agriculture, agricultural cooperatives and persons engaged in trade in agricultural products or in food industries are brought into an organization of corporative character. The law on the agricultural corporation created a legal basis for the regulation of agricultural markets, as applied in the former Reich. Two decrees of August 18, 1938 applied to Austria the most important texts of the Reich concerning the regulation of agricultural markets.

Introduction of the law on hereditary peasant property in Austria.

A decree (1) published on July 27, 1938 applied to Austria the law of September 29, 1933 relating to hereditary peasant property and the two decrees on the same subject of December 21, 1936. As in the greater part of the territory of the Reich, the old peasant custom of indivisible succession had been maintained nearly everywhere in Austria unaffected by the provisions of the law. Special laws forbidding the division of peasant properties in cases of inheritance existed in Carinthia and Tirol while, in parts of the Vorarlberg and Burgenland the custom of sharing property on inheritance had become increasingly sanctified by tradition. Hence, since the situation relating to the succession to agricultural property in Austria did not differ appreciably from that in the old territory of the Reich, it was possible to introduce the law on hereditary peasant property in Austria without modification.

(1) Reichsgesetzblatt 1938, I. S. 435.

POLAND

The seasons 1936-37 and 1937-38 marked a revival in Polish agriculture after a crisis of six years' duration. There are still, however, important problems to be settled, more especially those relating to the increase of production and the improvement of the general structure of agricultural enterprises. In the course of the years which preceded the revival various government measures were introduced for the purpose of easing the financial situation of such enterprises, and the improvement which took place in agriculture is due to these efforts as well as to the improved economic conditions of the last two years.

The increase in agricultural prices was maintained up to the end of the agricultural year 1937-38.

Index numbers of wholesale prices in Poland.

(1928 = 100)

Years	Articles bought by farmers	Products sold by farmers		
		Total	Cereal	Livestock
1935	66.3	35.8	32.8	35.5
1936	64.6	38.7	37.7	38.7
1937	66.1	49.2	55.8	43.5
1938	65.1	44.3	50.8	41.8

Area and production of the principal crops in Poland.

Crops	Area in thousands of acres			Harvests in thousands of metric tons		
	1935	1936	1937	1935	1936	1937
Wheat	1,754.1	1,742.1	1,692.7	2,011	2,133	1,926
Rye	5,783.9	5,831.4	5,722.7	6,617	6,364	5,638
Barley	1,218.7	1,186.7	1,232.7	1,468	1,401	1,363
Oats	2,234.2	2,254.8	2,295.2	2,598	2,640	2,343
Potatoes	2,813.8	2,893.4	2,978.4	32,502	34,281	40,221
Sugar-beet	118.7	121.4	147.7	2,501	2,555	3,246
Clover	894.2	959.8	865.2	—	—	—
Lupin	360.9	368.0	377.1	—	—	—
Others	1,984.0	2,000.4	2,113.3	—	—	—
Total	17,180.5	17,358.6	17,425.0	—	—	—

The total area under cultivation has much increased during the last few years but, in consequence of unfavourable weather, the production of the principal cereals has diminished. Statistical returns, however, show a marked increase in the outturns of 1938 as compared with the two preceding years.

The general economic improvement led to an increase in the consumption of agricultural products. The truth of this statement is proved by the fact that the export of cereals has decreased and the number of animals slaughtered has increased.

Slaughter of livestock in Poland.

(Number of head slaughtered)

Animals	1935	1936	1937
Cattle	3,355,485	3,597,998	3,933,410
Pigs	4,712,335	5,012,410	5,564,704
Sheep and goats	672,435	733,989	707,609

I. — MEASURES AFFECTING MARKET AND PRICES.

Grain Market.

The increase in domestic consumption, the decrease in the production of the principal cereals and their higher prices on the international markets automatically brought about an increase in the prices of agricultural produce. It followed, therefore, that certain extraordinary measures which had been introduced for the purpose of raising prices became superfluous. In the course of these last two seasons the Government was able to rescind them. Premiums on exports of cereals were first reduced and then entirely suspended. Only a small exportable surplus was offered by the 1937 crop, and almost throughout the year 1937-38 the export of any cereal except barley was prohibited. The following table shows the exports of cereals during the three years under consideration:—

Exports of cereals.

(in metric tons)

Products	1935-36	1936-37	1937-38
Wheat	52,839	51,302	1,732
Rye	217,198	217,251	10,347
Barley	350,541	287,647	208,881
Oats	117,703	66,935	8,426
Flours	244,632	160,387	16,083

Purchases for maintaining prices on the home market were first diminished and later entirely suspended and the body responsible for such matters, the Industries and Cereals Association, was reorganized with the purpose of strengthening the co-operative organization of the trade in agricultural products. At the same time the Government, as in former years, endeavoured to balance the supply and demand of cereals and to withhold from the market a part of the production during the first few months after the harvest.

These measures were necessary on account of the still precarious position of some of the farms. In 1936, 1937 and 1938 credits were granted against the August wheat harvests, a measure which had given satisfactory results during the preceding years.

The Government played an equally important part in connection with the market for animal products. It gave special attention to the expansion of outlets and the promotion of the export of meat, ham, bacon, eggs, butter and cheese.

II. — MEASURES AFFECTING AGRICULTURAL ECONOMY IN GENERAL

Most of the measures taken by the Government during the crisis aimed only at warding off the most imminent perils and dealing with the most urgent problems; namely the equilibration of prices of agricultural produce, indebtedness, and the financial situation of agricultural holdings. After the revival the Government was able to revert to problems connected with the agricultural structure, which were increasingly acute.

Throughout the greater part of the country, cereal crops constitute the essential part of the agricultural produce. The agricultural population is numerous and rapidly increasing, while industrial production is developing more slowly and is incapable of absorbing the excess rural population.

In the years 1936-37 and 1937-38 the Government, no longer compelled to take extraordinary measures on account of the crisis, was free to devote its attention to the following subjects:—

- (a) improvement of the structure of agricultural enterprises;
- (b) intensification of agricultural production;
- (c) development of stock-farming;
- (d) improvement of the technical conditions of the trade in agricultural products.

Improvement of the structure of agricultural enterprises.

The Government has adhered to its former policy of dividing large holdings. A total area of 96,500 hectares was be parcelled in 1936 and 113,100 hectares in the following year. It was thus possible to enlarge the dwarf holdings and form new holdings. The above mentioned areas were finally divided among 28,500 and 37,700 purchasers respectively. These measures contribute towards the solution of the excess population problem, especially in certain regions.

The Government has also extended its efforts in connection with the consolidation of family holdings. An area of 471,600 hectares was consolidated 86,200 holdings being affected by the operation. The corresponding figures for 1937 and 1938 are 470,200 hectares and 93,700 holdings.

The efforts made by the Government to free large estates from small farm servitudes, were also continued. As in the preceding years servitudes were abolished in return for compensation in the form of land or of money. The servitudes of 9,400 holdings were abolished in 1936 for compensations amounting to 11,600 hectares of land and 43,300 zloty. The corresponding figures for 1937 are 6,600 holdings 4,700 hectares and 114,200 zloty.

Improvement of agricultural production.

Various measures were taken by the Government for this purpose. Among the most important is the drainage of land, an area of 55,900 hectares having been drained during the year 1936.

Special credits were granted for the improvement of arable land, particularly in respect of drainage and sowing. In addition, the Chambers of Agriculture which function under Government auspices continued to regulate the sowings of almost all crops.

Development of stock-farming.

The Government held the view that the production of cereals on small holdings was not in itself adequate to ensure agricultural prosperity, and that, in order to raise the standard of living for farmers, it was necessary to develop stock-farming. For this purpose special credits were allowed including a new type which was granted against the livestock products themselves. This innovation was adapted from the system of credits guaranteed by cereals. The establishment of a connection between the number of animals on a farm and the credit allowed has encouraged a rise in cattle numbers and safeguarded the cattle market against excessive sales.

Measures for the promotion of pisciculture are also to be noted.

Improvement of the technical conditions of the trade in agricultural produce.

Credits from the State budget were granted for the construction of various equipment for the trade in agricultural produce.

An important part of this equipment are the silos, which have increased by 15 thousand tons the possibilities of storing wheat. Other improvements of the same nature are the refrigerating installations for the benefit of the meat trade and industry and the dairy industries.

ROMANIA

In the course of the last two years the Romanian Government has taken several measures for improving the technical methods of production and of guaranteeing a satisfactory income to the farmer. State aid has been given in respect not only of wheat growing, but also for the cultivation of soybeans, sugar-beet, tobacco, rice and textile crops, such as cotton, flax and hemp. Measures have also been taken for the improvement of the market situation of livestock products.

There has been a perceptible improvement in the incomes of the farming class and in purchasing power, partly due to the good harvests of recent years, and partly to the generally satisfactory level of prices due to the favourable trend of markets and to the intervention of the public authorities. These conditions have been favourable to the development and improvement of Romanian agriculture.

I. — MEASURES AFFECTING MARKETS AND PRICES.

Vegetable products.

Special attention has been given by the public authorities in the course of the last two years to the problem of improving the prices of agricultural products. As in the past, the State has intervened to protect agricultural interests and those of the farming population.

Wheat. — The system established in 1935 has been maintained with some trifling modifications. The main features of this system are as follows:—

(1) Fixing on domestic markets of a minimum price, varying with the quality of the product.

(2) Maintenance of the selling price abroad by means of export premiums.

(3) In order to recover the sums required for the payment of the export premium, a tax of 0.90 lei per kg. of wheat flour has been fixed, applicable only to flour intended for trade; the payment was to be made on delivery to mills worked on commercial lines. The majority of the mills, grinding only for small farmers, and consequently of purely farming type, have not had to pay this tax.

(4) The system has been supplemented by other measures, the most important being the intervention of the State on the market as a purchaser, through the medium of co-operative societies.

As the 1936 crop was larger than in 1935, the volume of wheat exports was heavier, and owing to the direct intervention of the Government, more markets for Romanian wheat were found.

By the Belgo-Romanian agreement, signed on August 12, 1936, an import quota into Belgium of 120,000 metric tons of Romanian wheat of specific weight (77 kg. per hectolitre) was granted to Romania; the terms of payment ensured to Romania a considerable quantity of foreign currency. Under an agreement with the Netherlands, a quota of 90,000 metric tons could be exported to that country. Similar arrangements, in favour of Romanian exports, were successively concluded with Greece, Italy, Germany, the United Kingdom, and other countries.

In the period from August 1936 to July 1937, exports amounted to approximately 1,020,000 metric tons of wheat representing a value of 5,300,000,000 lei. The following countries were the largest buyers: Italy, the United Kingdom, Belgium, the Netherlands, and France.

Export premiums allowed to exporters were at the rate of 1,000 lei per ton during the months of July and August; during this period very low prices were being offered by the importing countries. As world prices rose, the premiums were reduced; thus the premium for September was reduced to 800 lei per metric ton, in October to 6,500, in November and December to 2,500, and from January to April 1937 the premium was 50 lei per ton. In May it was abolished.

In all, the total amount paid in export premiums was 579,000,000 *lei*, representing an average of about 580 *lei* per metric ton exported.

State purchases through the co-operative societies, during the period July 1, 1936 to July 1, 1937 amounted to 164,060 metric tons, at an average price of 4,200 *lei* per metric ton; of this total 124,880 metric tons were exported to various countries, and 39,180 metric tons were purchased as supplies for the army.

In 1937-38 the same system was continued. The small modifications introduced did not affect the technique or the economy of the system, but merely ensured its smoother working.

With the object of checking the decline of internal prices and of encouraging exports, a minimum price of 4,200 *lei* per metric ton, and an export premium of 300 *lei* per metric ton were fixed for this period (August 14, 1937). On September 10, 1937 the premium was raised to 700 *lei* per metric ton, and on April 10, 1938 it was reduced to 400 *lei*, on May 10 to 50 *lei*, and on June 10 it was abolished. During the present year, wheat has been the principal product exported. Between April and June 1938 about 850,000 metric tons were exported; the leading importing countries were: Belgium, Greece, Germany, United Kingdom, Italy, Switzerland, Austria, Czechoslovakia, the Netherlands, and France.

Soybean. — Soybean cultivation was introduced into Romania only recently. It was not till 1934 that experiments on a large scale were made, 1,465 hectares being sown in that year. The "Soya" Company, which supervises the cultivation and marketing of oilseeds, undertakes to ensure to growers—from the time of sowing even—the sale of the crop at a fixed remunerative price.

As a consequence of assured profits, there has been a satisfactory expansion of the area under this crop. In 1935, 20,411 hectares were under cultivation; in 1936 58,037; in 1937, 102,000; and in 1938, 60,000. The 1938 acreage was fixed at this figure, as the company considered it sufficient. As poor results are obtained from this crop in the south of Romania, cultivation has been suspended in Wallachia and Dobruja, until varieties suited to these regions can be found.

The soybean may be said to be an acclimatised crop in certain parts of the country; its commercial importance is great as there is an important market for it in Germany. In 1935, 6,975 metric tons were exported, in 1936, 20,227 and in 1937 52,557.

Sugar-beet. — Sugar-beet cultivation is regulated by an agreement between the beet-growers' syndicates and the sugar refiners.

This agreement was drawn up under the supervision of a special Sugar Commission and approved by a resolution of the Council of Ministers. Growers receive from the refineries the seed required; payment for the crop is made on account, which facilitates the work of cultivation. The price is fixed in advance: for the 1938-39 season the price is fixed at 7,700 *lei* per truckload of 10 net metric tons of beet, delivered at the grower's station.

Under these conditions, with the guarantee offered by the agreement, the area under sugar-beet throughout Romania was in 1936 2,923 hectares, in 1937 29,600 hectares and in 1938 54,000 hectares.

Tobacco: Tobacco is grown in Romania under the direction of the "Casa Autonoma a Monopolurilor" (C. A. M.) (Independent Monopoly Administration). Growers are bound by contracts; cultivation and picking are under the direct control of the

administration; the growers are required to deliver the whole of the crop to the tobacco warehouses. In the regions suited to tobacco cultivation, there is always a remunerative return for the growers. In 1936 18,300 hectares were under tobacco and in 1937 14,300 hectares.

Rice. — Rice growing was introduced into Romania only recently; satisfactory results have been obtained in certain parts. In order to encourage rice cultivation, a series of State subsidies were granted in 1938.

Rice and cotton have been declared to be crops of national utility.

Textile crops. — During the last two years a whole series of measures have been taken by the State for the extension of the areas cultivated to cotton, flax and hemp.

With this object the "Oficiul National al Textilelor" (National Textiles Office) was set up and provided with the necessary funds. In 1937 an area of 75,800 hectares was under textile crops: 52,000 ha. under hemp; 22,000 ha. under flax; and 1,800 ha. under cotton. Experiments of some interest have been made in regard to hemp fibres and to cotton fibres for spinning.

Selected seeds were distributed by the Office. Remunerative prices were paid to the growers. Retting stations and special factories have been established, where both linen and hemp fibres are treated.

On the advice of the Office, a co-operative organisation, "Federatia textilelor" (Federation of Textiles) has been set up, and has equipped three factories: two for the preparation of hemp and one of the preparation of linen. The raw material is produced in the neighbourhood of these factories by the growers, who have entered into contracts with the factories.

There is a great demand for textile products on the home market; for some time past, there has also been a demand abroad. There is a rapid extension of the areas under these crops, especially since the Office has ensured satisfactory profits to growers by establishing contracts and fixing prices. The same method is followed in regard to cotton, that is to say, a guarantee is given of a satisfactory return. Cotton is bought from the growers in the raw state; it is then ginned and the fibre is distributed to the spinning factories. During the last two years the spinning factories have utilised, for the first time, cotton grown in the country.

A large proportion of the cotton, flax and hemp grown in the country is still utilised in the home spinning industry, in spite of the primitive equipment available.

The expansion of the cultivation of the textile crops is of considerable value to the State, which is no longer so dependent on foreign countries for textile products.

Livestock products.

Livestock production has received constant encouragement from the Government, which has subsidised stock breeding syndicates and granted to them, as well as to the other exporters, export premiums for livestock consigned to Western countries and even more for animals consigned to Eastern countries. By the various trade agreements made with Greece, Italy, Germany, Czechoslovakia and others, quotas have been arranged and markets thus ensured on favourable terms.

Among the different animal products exported, premiums have been granted by the Government under special agreements for lard consigned to Germany and Czechoslovakia and for tinned beef exported to England.

An improvement in wool prices was effected by State aid through the intermediary of the Union of Agricultural and Co-operative Syndicates, at prices fixed officially. The Government established minimum prices for the various classes of wool, obliging cloth manufacturers, traders and wool exporters to purchase Romanian wool, in accordance with contracts made with the Union of Agricultural Syndicates and the Central Co-operative Societies. Such contracts have been exempted from taxes and duties; the approval of the Ministry of Agriculture and Public Lands is required for their validity.

Among animal products intended for export, for which measures of encouragement have been taken there may be mentioned lambskins, hams and frozen eggs.

II — MEASURES AFFECTING AGRICULTURAL ECONOMY IN GENERAL

Encouragement of production.

In the period 1936-36 and 1937-38 there has been no decrease in the areas under the principal crops.

On the contrary, the result of all the measures taken has been the extension of area under crops more or less neglected previously, such as soybean, fibre crops, etc. The improved profitability of wheat growing owing to satisfactory prices has indirectly contributed to the yearly increase in sown acreage.

The purpose of most of the measures taken by the Government has been to improve the technique of production and the economic position of the growers. With a view to renewing the equipment of farmers, duty-free importation of a large number of tractors, seed drills and threshers, has been permitted; this enables farmers to purchase these machines at reasonable prices. A certain proportion of these machines belong to the agricultural Centres and to the communal farms which are at present the organisations set up by the Ministry of Agriculture for demonstration purposes. Facilities have been granted for the importation, duty-free, of various farm machines, copper sulphate, carbon sulphate, etc.

Plants required for new plantations of orchards or vineyards have been distributed by the Government which has also arranged for the necessary technical assistance. Small farmers benefiting by this form of State aid are expected to make repayment at the end of 14 years, that is, when they begin to gather the fruits of the new plantations.

Fruit storehouses and drying ovens were constructed and the methods of picking, grading, preserving, and packing the fruits were modernised, all with a view to increasing profits. For the better organisation of production, the vine-growing zones have been largely delimited from those of orchard cultivation.

A number of forest maintenance schemes have been prepared, and the Government has also given special attention to anti-erosion operations.

Special mention should be made of the activity of the State and of private persons in regard to stock breeding. The object of all the measures taken has been the impro-

vement, in quantity and quality, of Romanian live-stock. For this purpose large scale cultivation of forage crops has been introduced; farmers have obtained good seeds at low prices. Lucerne and clover seed were distributed for the sowing of the communal grasslands, and the harrows required for cultivation were placed at the disposal of the communes.

A number of communal stables were built, and a credit of 100,000,000 lei for purchasing breeding animals was placed at the disposal of communes, Chambers of Agriculture and districts. Steps have been taken to combat and to prevent the spreading of contagious diseases.

Internal land settlement.

Special attention has been given by the Government to the problem of land settlement within the country, and farm settlers have been assisted as far as the funds available allowed. In many of the regions so settled, there are well organised villages and small model farms. The work of settlement has been going on for the last two years, and helps to satisfy a need in the national life, felt in particular by the landless inhabitants of the more densely populated districts.

The greater proportion of the zones of settlement are found in the Dobruja quadrilateral, on the frontier. The extent of the lands given up to settlement has been increased partly from the State reserves, as required, and partly from large areas which became State property on the exercise of the State's right of preemption on the sales of lands by the Turkish population leaving the country. On several occasions, the State granted the necessary credits for these purchases.

Settlement has been carried out under the following conditions: settlers may postpone payment for a considerable time; for 10 years from the date of their installation, they are exempt from all State taxes and from all local charges; in the majority of cases, free consignments of building material are made.

Agricultural Credit.

Agricultural credit needs are met in Romania by two special institutions: the *Agricultural Mortgage Bank*, granting credit to farmers of large-and mediums-sized farms, and the *National Institute of Agricultural Credit*, recently founded for the purpose of meeting the credit needs of small farmers. To assist agriculture the rate of discount has been gradually lowered by the State, and on various occasions large credits have been made available for farmers through the Central Co-operative Bank and the People's Banks.

The Central Co-operative Bank and the National Institute of Agricultural Credit have, in particular, granted in the course of last year large credits to associations of family farmers for purchase of lands; these associations bought the lands offered for sale by large landowners.

Recently, a credit of one milliard at the rate of 2 $\frac{1}{2}$ per cent. interest has been placed at the disposal of farmers through the National Institute of Co-operation. The object is to increase production, and grants have been made for loans to farmers for the purchase of live or dead stock, land, etc.

Co-operation.

By the Decree-Law No. 2269 of June 1938, the numerous co-operative organisation existing in Romania have been amalgamated into the National Institute of Co-operation, under the Ministry of National Economy.

This step, important from the economic and social point of view, will, it is hoped, enable Romanian co-operative activity to continue on a new footing and to render great services to agriculture.

Prof. ALESSANDRO BRIZI, *Segretario generale dell'Istituto, Direttore responsabile.*

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MONTHLY BULLETIN

OF

AGRICULTURAL ECONOMICS AND SOCIOLOGY

1938

No. 11

THE SOCIAL INCOME OF AGRICULTURE IN EUROPE (I)

II.

**The trend of social income from 1927-30 to 1934-35
in Switzerland, Germany, Austria, Hungary and Romania.**

SWITZERLAND.

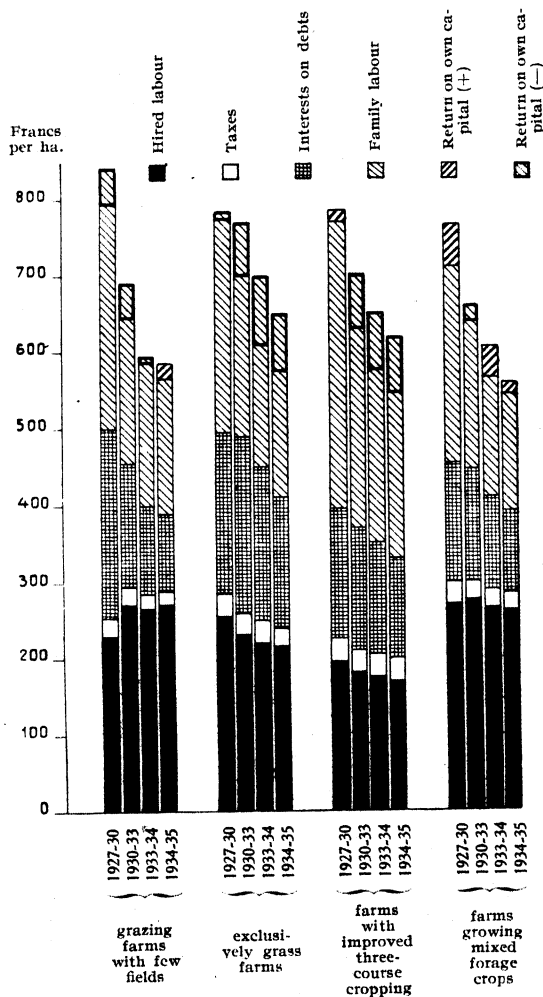
The present economic structure of Switzerland makes it a commercial State *par excellence*. As a "country of transit" for all the countries around, economic life in the different parts of Switzerland is so specialised that no one part can exist independently of the others, while the country as a whole cannot exist without maintaining intensive trading relations with the outer world. Like Germany and England, Switzerland has become increasingly industrialised at the expense of agriculture. Scarcely one fourth of the population is now engaged in the work of the fields. Everywhere arable cultivation has given way to grazing, and as in England, home-grown grain supplies only three months' breadstuffs. Potatoes, roots and forage crops cover a larger acreage than wheat. Since 1850 the area under vineyards has shrunk by half, though on the other hand there has been a great increase of fruit trees. The main feature is stock farming in all its forms, and 55 per cent. of available land is used for grazing. Switzerland produces more than 2,500,000 metric tons of milk per year, of which one third is transformed into butter and cheese.

In spite, however, of the improvement in stock breeds and crop returns, the total quantity of agricultural products remains far below the needs of the population: Switzerland imports five times her production of wheat, of fruit, of meat and even of dairy products. Her industrial production enables her to pay for these imports.

(1) Part I appeared in No. 10, 1938, of the *Monthly Bulletin of Agricultural Economics and Sociology*.

This vital need for foreign trade is the measure of the severity of the crisis brought about by the isolation of Switzerland during the war and prolonged by the strain of the exchange situation. The Federal Government had to introduce

GRAPH. I. — *Switzerland — Social Income.*



many measures of protection: regulation of the country's wheat supply; compulsory sale to the State Monopoly of Alcohols of all non-industrial alcohol not required for household needs; imposition of customs duties, closing of the frontier, etc. Powerful economic organisations, such as the Swiss Peasants' Union, the

Swiss Union of the Cheese Trade, the Central Union of Swiss Milk Producers, had already been created; these play an important part in the fixing of prices. Wheat prices are Fr. 8.50 per quintal higher than world prices—prices for wheat delivered at the frontier, duty paid; they are at present Fr. 36 minimum and Fr. 45 maximum. Prices of milk are also kept up by State aid. Thus on 13 April 1933 the Federal Chambers paid over a credit of 18,000,000 francs to the Central Union of Swiss Milk Producers to enable the Union to maintain the basic price of milk at 18 centimes the litre. By means of various charges on imported stock feeds, an endeavour was made in 1933-34 to reduce the production of milk and of pigs.

The following table shows the movements of prices.

Products	1923-27	1928-30	1931-32	1933	1934
Liquid milk, 100 kg.	27.82	25.90	22.55	20.15	20.10
Butter, wholesale, kg.	5.31	4.88	4.45	4.13	4.10
Emmental cheese, 1st. quality, kg. . .	2.68	2.62	2.17	1.98	1.98
Fat steers and heifers 100 kg. live weight	186.78	174.57	163.50	119.30	112.60
Fat pigs, kg. live weight	2.28	2.04	1.50	1.40	1.36
Wheat, quintal	44.31	42.10	38.30	36.10	35.11
Table potatoes, quintal	13.60	12.43	10.97	9.25	8.73

In view of this price decline since 1923-27, it is not surprising to find the gross return diminished by 25 per cent. between 1927-30 and 1934-35. The effects of the crisis have been felt longer in Switzerland than in other countries; as already said, these effects were prolonged by the strain of the exchange situation. Prices of manufactured commodities have not fallen in the same proportion as those of agricultural products; actually, costs of production have been lowered only by from 6 to 11 per cent., as the figures in Table I show.

In 1934-35 however small grazing farmers who also kept part of their holding for crops and those practising the improved three year crop rotation did rather better. The proportion in which the prices of their products were insufficient is less than in 1933-34. The annual losses in gold francs per hectare have been as follows.

	1927-30	1930-33	1933-34	1934-35
Grazing farms with some arable fields	— 180	— 265	— 224	— 212
Exclusively grazing farms	— 161	— 222	— 252	— 245
Farms on which the improved 3 year crop rotation is practised	— 152	— 244	— 250	— 241
Farms mainly engaged in growing mixed forage crops	— 130	— 206	— 139	— 176

TABLE I. — *Relation between the Gross Return and Cost of Production in Switzerland.*

	Cost of production		Gross return		Profit or Loss on total farms assets in % of gross return
	frances per ha.	index numbers	frances per ha.	index numbers	
Grazing farms with some arable fields:					
1927-30	1,490	100 —	1,310	100 —	— 13.74
1930-33	1,440	96.64	1,175	89.69	— 22.55
1933-34	1,208	87.11	1,074	81.98	— 20.86
1934-35	1,326	88.99	1,114	85.04	— 19.03
Exclusively grazing farms:					
1927-30	1,434	100 —	1,273	100 —	— 12.65
1930-33	1,479	103.14	1,257	98.74	— 17.66
1933-34	1,407	98.12	1,155	90.73	— 21.81
1934-35	1,350	94.14	1,105	86.80	— 22.17
Farms on which the improved three-year crop rotation is practised:					
1927-30	1,408	100 —	1,256	100 —	— 12.10
1930-33	1,355	96.24	1,111	84.81	— 21.96
1933-34	1,310	93.04	1,060	80.92	— 25.38
1934-35	1,280	90.91	1,039	79.31	— 23.26
Farms mainly engaged in growing mixed forage crops:					
1927-30	1,396	100 —	1,266	100 —	— 10.27
1930-33	1,359	97.34	1,153	91.07	— 17.87
1933-34	1,233	88.32	1,094	86.41	— 12.71
1934-35	1,223	87.61	1,047	82.70	— 16.81

The trend of the social income shows the situation in another light (Graph I). In the first place there may be noted the decrease in interest payments on debts and in wage labour costs. Wage labour is dear in Switzerland and interest charges on debts are very high. The Swiss farmer has paid too highly for his land; he has often put up expensive farm buildings, so that he has been obliged to mortgage his farm heavily: his debts in many cases amount to two thirds of the capital he needs.

	Liabilities in % of assets			
	1929-30	1930-33	1933-34	1934-35
Grazing farms with some arable fields	56.32	56.79	59.54	59.95
Exclusively grazing farms	59.94	64.12	64.74	64.41
Farms on which the improved three-year crop rotation is practised	47 —	47.28	44.66	45.69
Farms mainly engaged in growing mixed forage crops	46.70	51.23	54.98	54.64

On the grazing farms with some arable fields, the decrease in interest payments on debts is large enough in 1934-35 to balance the increase in farming expenses, which rose from 512 francs per ha. in 1927-30 to 525 in 1930-33, fell to 486 in 1933-34 and rose to 550 in 1934-35; the more so as in that year the gross return improved by nearly 4 per cent. (Table I). Hence the farmer obtains a low return on his own capital.

On the exclusively grazing farms, the interest payments on debts have less markedly diminished; moreover farming expenses which were 498 francs per ha. in 1927-30, amounted to 546 in 1933-34 and to 530 in 1934-35. The return on own capital fell much below zero.

The family farmer practising improved three-year crop rotation had secured in 1927-30 a moderate interest on his own capital. From 1930 his capital no longer yielded him anything: the farming expenses were too high, rising by 24 francs per ha. over the period 1927-30 to 1934-35.

On the farms mainly engaged in growing mixed forage crops, the farming expenses rose from 500 francs per ha. in 1927-30 to 512 in 1930-34, to fall to 487 in 1933-34 and 486 in 1934-35. The return on own capital which had become negative in 1930-33 rose above zero in 1933-34. It became smaller in the following year in spite of the lower interest payments on debts and lower farming expenses, as there was too marked a decline in the gross return (Table I).

GERMANY.

Germany is ever more predominantly a great industrial State. But German agriculture has lost nothing of its importance. There have been many new developments: the development of stock farming in the Lower Rhine plain and in the Westerwald, the extension of orchards and market gardens around the Ruhr industrial region, in the sub-Hercynian belt of Hanover, etc. Improved methods of cultivation and very high yields have followed the general adoption of chemical fertilisers and of improved farm machines, so that in spite of the migration of population to the towns the extent of lands under cultivation has not diminished and the total quantity of agricultural products has somewhat increased as compared with 30 years ago, in the proportion of one tenth for cereals and one fourth for live stock.

Among the various crops the cereals take a prominent place. More than one third of the cereals area is under rye; oats come next, the increased cultivation being due to the increase in stock farming; and wheat takes third place.

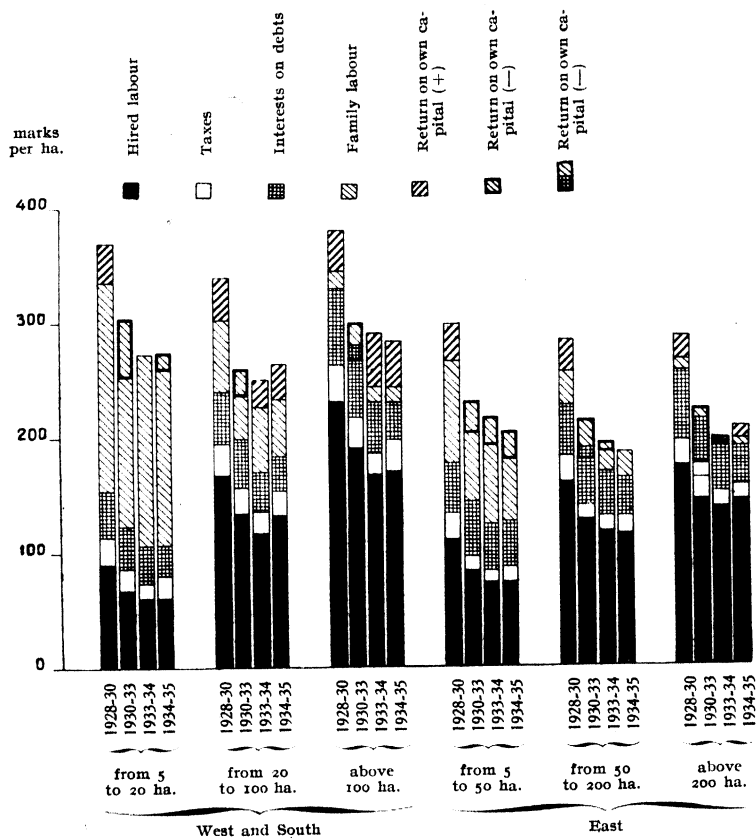
An exceptionally important place is taken by the potato crop which forms the basis of the national diet.

There is a continual increase in the consumption of meat in the towns and in consequence the farmers tend to breed more stock. There has been no great extension of natural grasslands (the area was 5,454,000 ha. in 1922, 5,492,000 in 1927 and 5,607,000 in 1937) and the area of sown grasslands has been reduced (the area sown to lucern and clover fell from 2,161,000 ha. in 1922 to 2,064,000 in 1927 and to 1,453,000 in 1937), but by better use of

these lands and by the application of chemical fertilisers, much larger hay harvests have been obtained, the figures being 192,407 m. tons in 1922, 239,620 m. tons in 1927 and 267,736 in 1937.

Pig breeding has developed along with cattle breeding.

GRAPH II. — *Germany — Social Income.*



Germany is one of the largest producers of sugar-beet, nearly 11,000,000 m. tons of roots being grown in 1927. Hop production is about 200,000 quintals; flax continues to be grown in the North and tobacco in the plains.

Industry employing an ever-greater number of hands, German agriculture seeks to produce the utmost possible quantity of foodstuffs while employing less labour. Nothing has been neglected to ensure quick turnover, since in so large and complex an organisation a slowing of circulation would mean paralysis of the whole.

Foreign trade is determined by internal requirements and by the material available for export, both alike considerable. The bulk of the imports consist in the raw materials of industry, but foodstuffs represent one third, in 1927 amounting to a value of 4,300,000,000 marks. In 1927 Germany imported wheat to the value of 674,000,000 RM; barley was brought in from abroad for the breweries, maize for the pigs, potatoes, large quantities of vegetables and fruit, frozen meat, live animals, fresh fish, dairy products (470,000,000 RM). Imports of foods and of raw materials were balanced systematically by the exports of manufactured products.

Since 1932 severe restrictions have been placed on the import of agricultural products.

From the time of its accession to power, the National Socialist Government has endeavoured in every way to assist the German farmer. It laid the bases of a disciplined organisation of agriculture. Market associations and other compulsory associations have made their appearance.

The recovery of economic activity dates from the winter of 1932-33. From that time prices of agricultural products rose towards the level of 1929-30.

Index-numbers of wholesale prices in Germany.

(1913 = 100).

	Yearly averages (July-June)				
	1929-30	1931-32	1932-33	1933-34	1934-35
Crop production	119.9	117.6	101.3	101.4	113.8
Slaughter stock	124.0	71.8	62.9	67.6	76.9
Animal production	132.2	99.2	92.1	104.7	105.8
Stock feeds	104.3	96.8	85.5	93.3	105.7

And advance in the gross return in 1934-35 may also be noted; this tendency began in 1933-34 on the large farms of over 100 ha. of the West and South, and on the farms of the East of over 50 ha.

Parallel however to the advance in prices of agricultural products there was in 1934-35 a rise in farming expenses, which affected the farms from 5 to 20 ha. in the South and West as well as these of from 5 to 50 in the East; the return on own capital becomes or remains negative (see Graph II).

The position of the large farms improved, as the gross returns obtained were high enough to neutralise partially the effect of the rise in farming expenses on the social income; the return on own capital was no longer negative (farms from 50 to 200 ha. of the East) or became positive (farms of over 200 ha. of the East). None the less the level of the social income was much below that of the pre-crisis period.

TABLE II. — *Relation between Gross Return and Farming Expenses in Germany.*

	Farming expenses		Gross return	
	RM per ha.	index numbers	RM per ha.	index numbers
<i>West and South.</i>				
Farms:				
of 5 to 20 ha.:				
1928-30.	553	100 —	589	100 —
1930-33.	469	84.81	456	77.42
1933-34.	424	76.67	456	77.42
1934-35.	452	81.74	469	79.63
of 20 to 100 ha.:				
1928-30.	512	100 —	551	100 —
1930-33.	419	81.83	437	79.31
1933-34.	380	74.22	436	79.13
1934-35.	422	82.42	484	87.84
over 100 ha.:				
1928-30.	569	100 —	607	100 —
1930-33.	454	79.79	488	80.39
1933-34.	410	72.06	496	81.71
1934-35.	439	77.15	514	84.58
<i>East.</i>				
Farms:				
of 5 to 50 ha.:				
1928-30.	393	100 —	423	100 —
1930-33.	319	81.17	335	79.20
1933-34.	302	76.84	319	75.41
1934-35.	303	77.10	318	75.18
of 50 to 200 ha.:				
1928-30.	392	100 —	418	100 —
1930-33.	303	77.30	319	76.31
1933-34.	293	74.74	329	78.71
1934-35.	301	76.78	336	80.38
of over 200 ha.:				
1928-30.	390	100 —	409	100 —
1930-33.	315	80.77	321	78.48
1933-34.	305	78.20	344	84.11
1934-35.	326	83.59	368	89.97

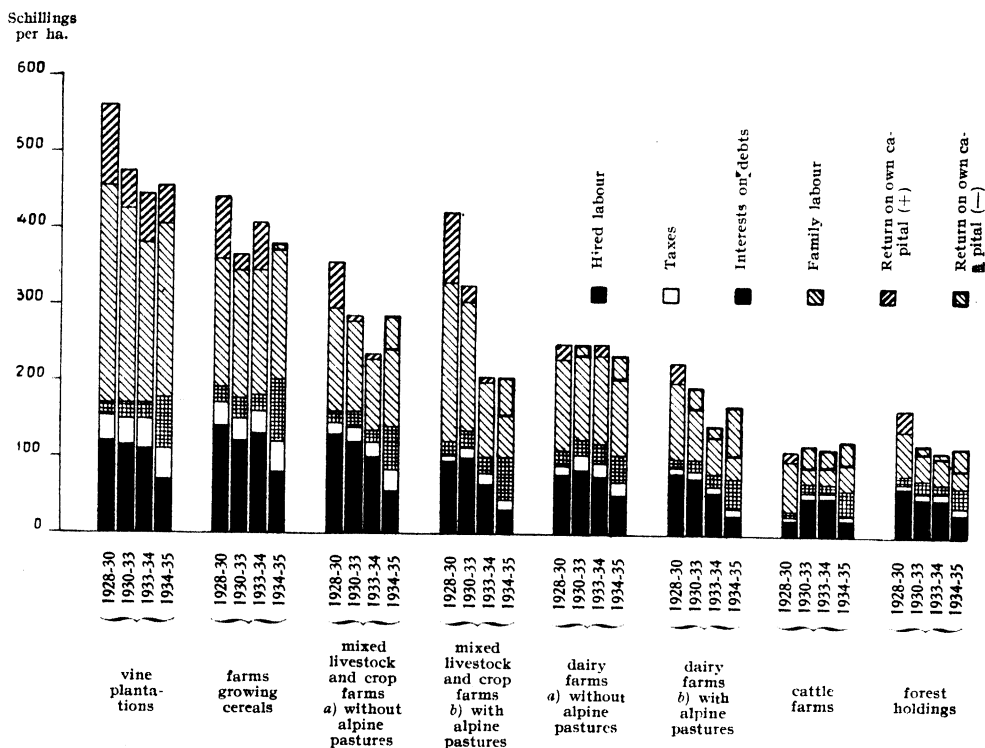
AUSTRIA.

In Austria, the extent of the arable land and the grassland taken together however did not however equal that of the forests. In 1927 the figures of the cereal production regained those of 1913; 80 per cent. of the requirements of the country in rye were met by the 5,000,000 quintals produced in that year, and 67 per cent. (2,500,000 quintals) of the barley requirements. The wheat crop with over 3,000,000 quintals, was deficient: three fifths of the consumption had to be imported. The potato crop was entirely equal to requirements.

Herd reconstitution was very satisfactory, and Austria took a leading place among the countries possessing an excess of cattle in relation to the population.

It is thus not surprising to find that the farms mainly engaged in cereal growing were those which yielded the highest social income, apart from the farms engaged in fruit growing (Graph III). An average social income was obtained by the mixed farms; that of the dairy farms was less satisfactory. The social

GRAPH III. — *Austria - Social Income.*



income of stock raising-farms and of forest holdings did not represent more than one fourth of that of the farms growing cereals (Graph III).

For fruit growers the decrease in labour costs balanced in 1934-35 the increase in the interest charges on debts! (these trebled in Austria from 1933-34 to 1934-35), so that the share of the social income which had to be paid out by the farmer remained the same from 1928-30 to 1934-35; it was the share that fell to the farmer himself that varied. The return on own capital, greatly reduced in 1930-33, was a little higher in 1933-34 but fell again in 1934-35 owing to the increase in the

interest on debts; the gross return in 1934-35 showed a larger proportional increase than did the production costs:

Years	Production costs		Gross return		Profit or loss on total farm assets in % of gross return
	schillings per ha.	index numbers	schillings per ha.	index numbers	
1928-30	931.01	100 —	838.94	100 —	— 10.97
1930-33	930.18	99.91	776.34	92.54	— 19.82
1933-34	830.77	89.23	711.51	84.81	— 16.76
1934-35	845.25	90.79	730.62	87.09	— 15.69

Actually it would not have been necessary in 1933-34 to raise the prices in so great a degree as in 1934-35, to bring the gross return up to the level of the production costs. The loss per hectare was a little less (114.60 in place of 119.25 schillings).

For cereal growers, the return on own capital, after having decidedly recovered in 1933-34, fell below zero in 1934-35. In 1933-34 the gross return increased, as shown by the following figures:

Years	Cost of production		Gross return		Profit or loss on total farm assets in % of gross return
	schillings per ha.	index numbers	schillings per ha.	index numbers	
1928-30	719.36	100 —	669.47	100 —	— 7.45
1930-33	710.61	98.78	595.56	88.96	— 19.32
1933-34	725.82	101.90	650.74	97.20	— 11.54
1934-35	706.42	98.20	632.35	94.45	— 11.71

The ratio between the gross return and the production cost remained the same in 1934-35 as in 1933-34; but the interest charges on debts increased, considerably, so that the return on own capital was negative (Graph III).

The social income of farms engaged more or less equally in crop and livestock production steadily declined from 1928-30 to 1933-34. This was because wage labour costs fell less than the return on own capital. The decline in gross return each year was proportionally larger than the decline in the costs of production: the proportion in which it would have been necessary to raise the prices of agricultural products is each year larger (see following figures). In 1934-35 the return on own capital fell below zero.

The situation on the dairy farms without alpine pasturage improved in 1933-34; the return on own capital rose above zero (Graph III), owing to rise in the gross return (Table III).

The slightly more favourable situation of the dairy farms with alpine pasturage in 1933-34, as compared with the preceding years, is due to the fact that the reduction in farming expenses was much more marked than the decrease in the gross return (Table III). In 1934-35, however, the return on own capital which had appeared to be stable for a while, dropped and fell much below zero (Graph III). The value of the gross return was scarcely more than half the value it had in 1928-30. The farmer's loss (loss on farm assets) which was 65 schillings per hectare in 1928-30 was 107 in 1934-35.

Cattle breeding had the smallest profit capacity of all in the Austrian Confederation. The social income and the gross return were scarcely half what they were for the dairy farms without alpine pasturage. In 1930-33 the return on own capital became negative and has remained so since; that year, production costs increased and gross return decreased. The farmer lost 80 schillings per ha., instead of 55 as in 1928-30. This loss was gradually reduced in the following years: it was 70 schillings in 1933-34 and 60 in 1934-35.

TABLE III. — *Relation between Gross Return and Production Costs in Austria.*

	Production costs		Gross return		Profit or loss on total farm assets in % of gross return
	schillings per ha.	index numbers	schillings per ha.	index numbers	
Farm engaged both in live stock and crop production:					
(a) without alpine pasturage:					
1928-30	550.74	100 —	504.47	100 —	— 9.17
1930-33	567.09	102.97	463.11	91.80	— 22.45
1933-34	475.70	86.37	381.65	75.65	— 24.64
1934-35	496.55	90.16	396.73	78.64	— 25.16
(b) with alpine pasturage:					
1928-30	639.04	100 —	590.89	100 —	— 8.15
1930-33	652.75	102.14	541.25	91.60	— 20.60
1933-34	370.41	57.96	308.80	52.26	— 19.95
1934-35	342.69	53.63	258.84	43.80	— 32.39
Farms engaged in dairy production:					
(a) without alpine pasturage:					
1928-30	414.60	100 —	346.51	100 —	— 19.65
1930-33	526.27	126.93	395.34	114.09	— 33.12
1933-34	520 —	125.42	418.55	120.79	— 24.24
1934-35	446.26	107.64	346.59	100.02	— 28.70
(b) with alpine pasturage:					
1928-30	382.60	100 —	316.87	100 —	— 20.74
1930-33	385.89	100.86	269.09	84.92	— 43.40
1933-34	290.61	75.96	207.88	65.60	— 39.80
1934-35	284.12	74.26	187.52	59.18	— 51.51
Farms engaged in cattle breeding:					
1928-30	220.48	100 —	175.30	100 —	— 25.77
1930-33	234.73	106.46	154.43	88.09	— 52 —
1933-34	220.70	100.10	149.99	85.56	— 47.14
1934-35	209.20	94.88	145.79	83.14	— 43.49

There remain the forest holdings: the social income on these is a little higher than in cattle breeding, but here also the return on own capital has been negative since 1930. The proportion in which the prices of agricultural products would have to rise to bring about the disappearance of the farmer's loss, has continually increased.

Forest Holdings.

Years	Production costs		Gross return		Profit or loss on farm assets in % of gross return
	schillings per ha.	index numbers	schillings per ha.	index numbers	
1928-30.	268.44	100 —	230.38	100 —	— 16.52
1930-33.	247.22	92.09	180.43	78.32	— 37.03
1933-34.	215.38	80.23	162.70	70.62	— 32.28
1934-35.	205.79	76.66	143.48	62.28	— 43.43

HUNGARY.

Although the crisis was as severe in Hungary as in Austria, it appears to have been more easily overcome. Five eighths of the whole population live on the highly productive soil, which yields great quantities of cereals and supports sufficient livestock for an export trade. The large estates still cover more than one fourth of the whole extent of land in the districts to the west of the Danube, where a majority of the small holdings are also situated; the medium-sized farms are mainly in the Alfoeld.

After the war, farming in Hungary became more intensive: on the large and medium-sized estates there was an increase in sugar-beet growing; most important was the extension of the forage crops, which eventually made up for the shrinkages in grazing land and natural grassland. Natural hay was replaced rather by maize and beet than by leguminous crops such as vetches, clover, lucern.

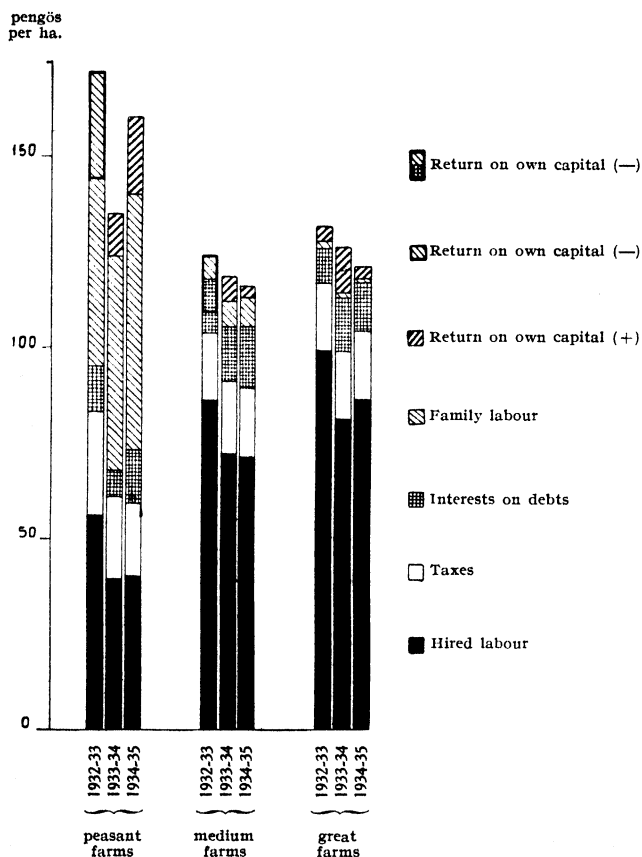
By 1927 Hungary had almost completely reconstituted her livestock numbers. She is also one of the granaries of Europe. Her exports consist, for four fifths in weight and two thirds in value, of products of the soil, *viz.*, 190,000,000 pengös of wheat in grain and flour, 30,000,000 and 40,000,000 pengös of pigs and cattle, 70,000,000 of poultry, etc.

In 1932 the position of the small- and medium-sized farms was bad. In consequence of the disastrous fall in the price of agricultural products, the net return fell so low that it no longer covered the interest charges on debts.

There was no interest coming in on capital, but the small farmer none the less found a livelihood, as the operator's income (the sum he can spend without having to draw on his capital) was still fairly considerable.

	Net return in pengös per ha.			Operator's income in pengös per ha.		
	1932-33	1933-34	1934-35	1932-33	1933-34	1934-35
	—	—	—	—	—	—
Small farms	16.39	18.22	33.88	48.94	67.33	86.76
Medium-sized farms	2.26	20.71	19.70	9.35	13.06	10.78

GRAPH IV. — Hungary — Social Income.



When conditions improved (in 1933-34 and in 1934-35), the interest on borrowed capital invested in small farming enterprises remained low (1.23 per cent. in 1933-34 and 2.03 per cent. in 1934-35). The agricultural income (remuneration of the work of the farming family plus interest return on own capital, Graph IV) rose much more rapidly. The small farm holding

thus represents for the Hungarian family farmer a safe investment of labour, and it is for this reason that small farms are in demand and fetch a good price.

The case of the medium-sized farms is different. On these the work put in is not always sufficiently remunerative to ensure an income to the farm operator, who in 1932-33 could only pay a small proportion of the interest on his debts (Graph IV). To pay in full, he was obliged to draw upon his own capital.

The large farms, which require large capital investment and much wage labour, no longer represent an investment of labour for the family of the head of the undertaking, and the net return is of more importance than the operator's income:—

	Net return in pengös per ha.			Operator's income in pengös per ha.		
	1932-33	1933-34	1934-35	1932-33	1933-34	1934-35
Large farms	13.14	24.77	15.13	4.78	13.09	3.93

Nowhere (in Europe at least) are taxes so high in proportion to the social income as in Hungary: on the small farms, 19 per cent., on the medium-sized farms 16.6, and on the large farms 13.5 per cent. of the social income. These taxes are too high in proportion to the level of the social income.

The reason for the less satisfactory situation of the large farms in 1934-35 than in 1933-34 must be sought in the fact that production costs rose more rapidly than the gross return.

TABLE IV. — *Relation between Gross Return and Production Costs in Hungary.*

	Production costs		Gross return		Profit or loss on total farm assets in % of gross return
	pengös per ha.	index numbers	pengös per ha.	index numbers	
Small farms:					
1932-33	365.30	100 —	265.30	100 —	— 37.69
1933-34	240.22	65.67	199.06	75.03	— 20.68
1934-35	261.66	71.63	228.85	86.26	— 14.34
Medium-sized farms:					
1932-33	265.17	100 —	208.31	100 —	— 27.30
1933-34	224.80	84.78	194.09	93.17	— 15.82
1934-35	220.57	83.18	190.59	91.49	— 15.73
Large farms:					
1932-33	263.27	100 —	229.45	100 —	— 14.74
1933-34	225.94	85.82	205.50	89.56	— 9.55
1934-35	239.73	91.06	208.27	90.77	— 15.10

On small farms as on large ones costs advanced in 1934-35, but the gross return increased in still larger proportions, and hence the situation improved.

On the medium-sized farms, gross return and production costs both fell in 1934-35: the proportion in which prices of agricultural products would have had to be raised remained unchanged.

According to the Accountancy Office attached to the National Agricultural Society of Hungary (1), the proportion of the gross return finding its way to the market diminished during the crisis years.

Sent to the market	in 1929-33	in 1934	
by farms of less than 10 <i>joch</i>	52 %	55 %	of gross return
by farms of from 30 to 40 <i>joch</i>	54 %	57 %	»
by farms of from 50 to 100 <i>joch</i>	56 %	72 %	»

It appears therefore that whenever the market situation was unfavourable, farming (especially on the large farm) tended to become more extensive, that owing to reduction in the number of paid work days, in the utilisation of manures, etc., the production decreased and that, as the requirements of the farm household remained the same, smaller quantities of products could be placed on the market.

ROMANIA.

Geography, tradition, the war and the agrarian reform have all in different ways affected Romanian agriculture.

The climate, of continental type with early and rainy springs and very dry, in the latter part of the summer, accounts for the extensive growing of cereals, especially of maize, and for the sheep farming on the dry grasslands of the plains and of the Carpathian slopes.

In no country have the conditions of rural land tenure been so radically modified in the post-war period, as in Romania. It has become a country of small holders, where the proportion of the total area farmed in holdings of less than 10 hectares is now 92 per cent., as compared with 57 per cent. before the reform. The advantages of the partition of the lands and of the organisation of co-operative societies are now beginning to be felt.

Wheat is tending to regain its former position; in 1925 it covered one third of the sown land, equalling the area under maize. More than 400,000 hectares were under crops of potatoes and pulse, without counting the area, five or six times larger, under these crops mixed with maize.

The new conditions of land tenure seem to have brought about a revival of stock breeding. The small holder wants his two cows and his pig, and as soon as he is better off, he buys a horse. Sheep farming has retained its traditional importance, in part a matter of climate. The pre-war cattle numbers

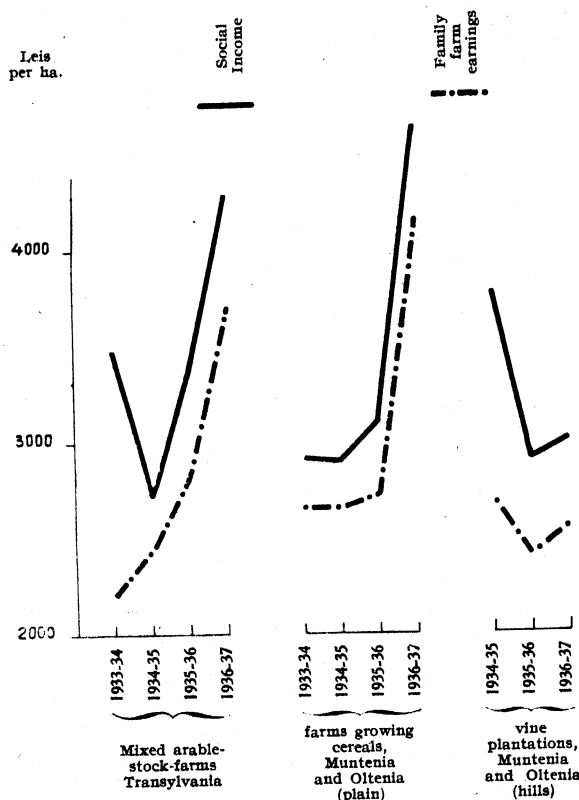
(1) For this study of the Hungarian situation use has been made of a report kindly supplied by the Hungarian Ministry of Agriculture.

have been regained, *viz.*, some 5,400,000 head not including buffaloes. The pig numbers, at present from 3 to 4 million, could be increased and with advantage to the small farmer.

A special feature of Romanian agriculture is the cultivation of trees and shrubs, especially in the older Romanian areas.

The progress accomplished by the Romanian small family farmers within less than a half-century is remarkable, and there can be little doubt that the

GRAPH V. — *Romania - Social Income.*



land so cultivated will be still more productive in the future. National requirements are increasing with the population, with the higher standard of living, with the development of towns and of industry. As the national industry develops, Romania will have less agricultural products to offer to other countries in exchange for manufactures commodities; but the internal market will be more important.

As figures relating to the years 1927-30 and 1930-33 are not available, the development of the social income cannot be studied, as has been done for the

other countries, for the periods before during and after the crisis. Thanks however to the information supplied by the Ministry of Agriculture (1), the variations of the social income from 1933-34 to 1936-37 can be given.

Graph V shows the trend of the social income and of the operator's income in Transylvania, Muntenia and Oltenia. There is for the same year a noticeable difference between one region and another, due to differences in the system of farming. In 1934-35 the level of social income fell both on farms engaged both in crop and livestock production in Transylvania, and on farms engaged in cereal growing in the plains of Oltenia and Muntenia; and in 1935-36 on the hill farms of Oltenia and Muntenia, which are mainly engaged in fruit growing. As from 1934-35 the social income of the two first groups rose and, as from 1935-36, that of the farms of the last group also. The operator's income as a rule follows the variations of the social income.

In 1935-36 and in 1936-37, the different branches of agricultural production in Romania benefited by general favourable conditions resulting in a noticeable rise in incomes.

Energetic measures have been taken by the Government for regulating wheat prices. By the law of April 17, 1935 the minimum price of wheat sold within the country was fixed at 35,000 lei per truck weighing 77 kg. with 3 per cent. of foreign bodies. Premiums were paid to wheat exporters, at the rate of 10,000 lei per truck of wheat and 12,500 lei per truck of flour exported. The Government has also regulated the working of mills and bakeries. The Central Office for regulation of wheat prices was instituted, and a central service of supply. Measures have been taken for the control of plant diseases, and stock breeding has been encouraged by the payment to breeders of 10,000,000 lei for the purpose of obtaining quality breeding animals, stallions, bulls, boars and rams. The legal bases of a cooperative system have been laid.

Prices of agricultural products have risen as follows:

Index-numbers of prices of agricultural products.

Period	Wheat	Animal production	All agricultural production
August 1934	65	38	49.3
January 1935	67	44	50.8
August 1935	69	63	61.1
January 1936	88	64	70.2

It may be noted in conclusion that during the last few years the farmers have regularly paid the instalments for the conversion of debts and the direct taxes, and have also borne a large part of the burden of the constantly growing indirect taxes which the State has had to impose.

J. DESLARZES.

(1) The report which the Bucharest Ministry of Agriculture has been so good as to send is utilised here.

LAND RECLAMATION AND IMPROVEMENT IN EUROPE

(continued) (1).

BULGARIA.

Land improvements in Bulgaria consist mainly of irrigation and drainage works, carried out by public associations (syndicates) and by the State.

The syndicates for irrigation resemble co-operative societies in their organization and objects. The legal difference between the hydraulic syndicates and the co-operative societies lies in: (1) the obligatory nature of the former, all holdings or estates within the area of the waters under regulation being compulsorily included, and (2) in their dependence on the Ministry of Agriculture and Public Lands.

There are now in Bulgaria 64 hydraulic syndicates: 46 for irrigation, 9 for land drainage and correction of water-courses, and 9 for electrification. The majority are thus syndicates for irrigation, the object of which is the irrigation of the cultivated lands of the farmers who are obliged to join them; 17 of these operate in the basin of the Maritza, 14 in that of the Struma, and the others are distributed along the larger watercourses of Bulgaria.

In the Sofia district there is a syndicate for land drainage and correction of water courses, another in that of Ruschuk and a third in the district of Sumen.

From the standpoint of national economy, the syndicates engaged in irrigation are the most important. They include 30,792 individual members and 337 collective memberships, or a total of 31,129.

These irrigation syndicates now serve a total of 105,401 decares of cultivated lands, the greater part being rice-fields, tobacco plantations and orchards. These lands, which may be said to be intensively cultivated in view of the relatively large amount of labour and attention they require per unit of area, although not accounting for more than a small proportion of the total of cultivated lands, represent in all 65.70 per cent. of the whole irrigated area, the yield of which has been increased as the result of the irrigation.

According to the figures available in respect of 48 hydraulic syndicates, these have expended for various works 129,971,000 levas, for the upkeep of these works, 49,743,000 levas, or, in all, 179,714,000 levas.

In addition to these costs of construction and upkeep of the works connected with land improvements, the administrative costs of irrigation have amounted yearly to 4,809,000 levas, or an average of 46 levas per decare.

As a result of these improvements, the value of the whole of the irrigated lands in Bulgaria, viz., 105,401 decares, has increased by 253,168,000 levas, or by about 2,301 levas per decare. It is estimated that the yield of the irrigated crops of this area has increased by a total of 106,111,000 levas, or an average of 1,006 levas per decare.

(1) For the first part of this study see the issue of October of this *Bulletin*.

Irrigation improvements are in the hands of public syndical organizations, but land drainage has been carried out almost exclusively by the State and by special institutions, such as the Department for the settlement of refugees and the Public Debt Department. By means of the 1926 loan for the settlement of refugees, negotiated under the auspices of the League of Nations, drainage of certain marshlands and of coastal marsh districts, as well as other operations, was effectively carried out. The result was to secure for cultivation large areas of lands, especially: by means of the drainage of the Messemvria swamps (11,640 decares); by the drainage of the Strandja marshes (24,854 decares); by that of the Mandra and Yakizli lagoons (21,090 decares); and by the draining of the lowlands along the course of the Danube, 173,467 decares; in all, 231,057 decares, which were utilized for various crops.

At the end of September 1937, the expenditure in respect of various types of drainage operations amounted to 131,118,000 levas, of which the greater proportion was utilised for the construction of the dyke for protection against the Danube floods near the village of Ghiguene.

In 1937 several drainage and dyking operations were carried out in the district of Vidine with the assistance of forced labour and credits allocated by the Ministry of Agriculture.

FINLAND.

Land improvement in Finland (1) includes drainage, irrigation and regulation of water courses, including, not only the regulation of streams, torrents and brooks, but also the lowering of lake waters, drainage of marshes and construction of dykes.

The planning of improvements of privately held land is, together with their execution, mainly in the hands of eight local rural engineering departments, subordinate to the Department of Agriculture. On the other hand, the Department of Highways and Water Courses is responsible for the preparation and execution of the schemes for the regulation of streams in the general interest of agriculture. These operations are entirely at the expense of the State. The Finnish Land Drainage Association, which is subsidized by the State and acts under State supervision, is almost the only body to undertake drainage schemes by means of underground conduits. The purpose of this Association, founded in 1918, is to extend this system of land drainage and to develop irrigation in the areas of cultivation (2).

(1) AGRICULTURE IN FINLAND. Ministry of Agriculture in Finland, Helsinki, 1937.

(2) Mention should also be made of the Finnish Society for Cultivation of Marshlands, founded in 1894, the object of which is to encourage the utilization of the more extensive marshlands, either by cropping or for industrial purposes. This Society carries out scientific and practical investigations on the marshlands, organizes the work of bringing these lands under cultivation and arranges trials in cropping, etc., both on its own experiment stations and on private farms.

Land improvement is encouraged by the Finnish Government both by means of direct subsidies, and by amortizable loans at reduced rates of interest. State assistance is granted on the condition that a fixed proportion of the area drained is brought under cultivation during the period for which the loan is given. As a rule, the direct subsidies cover the costs of survey, of the purchase of tools and equipment, of investigations and part of the labour costs. The remainder of the labour costs may be covered by means of loans repayable by instalments of capital and interest. On an average, the direct State subsidy amounts to about 50 per cent. of the total cost of each scheme. The period over which loans may be amortized, is, according to circumstances, from 13 to 21 years.

State aid is given to underground drainage schemes mainly under the form of amortizable loans bearing a moderate rate of interest; the maximum amount granted per hectare brought under this type of drainage is 2,000 Finnish marks.

Collective land drainage operations subsidized by the State are carried out under the direction of experts paid by the State.

In 1934 the sum shown on the budget for land improvement works under the supervision of Government Departments was 31,000,000 Finnish marks, of which 20,000,000 represented direct subsidies and 11,000,000 amortizable loans.

Each year since 1918 has seen progress in land improvement, as is shown by the accompanying table which gives the number of drainage operations carried out with State aid under the supervision of the Department of Agriculture over the period 1919 to 1933, the sums set aside for the purpose, and the area drained.

Period	Number of operations	Expenditure Finnish marks	Area drained			
			Cultivated land ha.	Meadows and cultivable marshlands ha.	Uncultivable marshes, forest lands and marshlands ha.	Total ha.
1919-23	115	15,096,728	9,549	22,503	1,179	33,231
1924-28	367	57,070,025	17,945	35,832	10,952	64,729
1929-33	1,102	105,097,917	41,734	53,283	15,032	110,049
Total. . .	1,584	177,264,670	69,228	111,618	27,163	208,009

Underground drainage by means of brick or wooden conduits was undertaken under the supervision of the Finnish Land Drainage Association on a total area of 1,261 ha. in 1919-23, of 5,677 ha. in 1924-28 and of 13,091 ha. in 1929-33. Recourse was had to State loans for one fourth only of these operations.

Drainage operations have been carried out in the desmesne forests with a view to land settlement and roads have been made through the forests under the supervision of the Engineering Office of the Land Settlement Department. In 1934 a total of 500,000 Finnish marks was set aside for this purpose.

FRANCE.

Land reclamation has not been undertaken in France by the Government in any particular region; owing to the low density of population no such enterprise was necessary.

On the other hand, extensive land improvements have been effected by private owners, sometimes with State aid. The following figures are taken from the "Résultats généraux de l'enquête de 1929".

Land Improvements from 1919 to 1929.

Land clearing operations	110,000 ha.
Land drainage	100,000 »
Draining of humid soils	10,000 »
Irrigation, etc.	43,000 »
Re-afforestation	222,000 »

With the encouragement of the Administration of Waters and Forests, re-afforestation is carried on with remarkable energy; landowners undertaking this work of public utility receive subsidies and are granted exemptions from taxes.

Apart from these land improvements, operations of general interest have been undertaken with the object of improving the equipment of agriculture and of stemming the drift from the country.

The progress achieved between 1919 and 1929 is illustrated by the results of the enquiry made in 1929:

Country roads	134,648 km.
Water supply systems	26,577 »
Electric supply services	185,410 »

Without entering into detail, mention should be made of the work done for rural electrification by the Rural Engineering Department with the assistance of private persons, of public organizations and of the *Crédit Agricole*.

Since 1929, work has been actively pushed ahead. Large credits have been assigned to local groups with a view to remedying unemployment by the opening of factories engaged on work of public utility. There was no slackening in this work of improvement of rural areas during the crisis period.

GREECE.

The area under cultivation was found, after the settlement of refugees on the land, to be insufficient and measures had to be taken for its increase by means of the draining of humid soils. The total of lands thus recovered is 56,000 ha. in Macedonia, distributed as follows: Lake Artzan-Amatovo, 5000 ha.; Yannitsa Lake and Loudia marsh, 31,000 ha.; Lake of Achinos, 11,000 ha. and the Philippi marsh, 9,000 ha.

In addition, protection against floods has been ensured for 75,000 ha. of land formerly periodically inundated, and a large proportion of this area will be irrigated.

Regulation of torrents and re-afforestation of slopes are also contemplated.

Operations on the lakes Lyssimachia, Lessini, Xinias and Zirnassou occupy some 10,000 ha.; these are still in course of execution; the Zirnassou works which are however nearly completed.

As the water courses in Greece are torrential in character, and have to be embanked, extensive protective dykes are now being constructed, *viz.*, those undertaken for protecting an area of 79,000 ha. against the flooding of the Pinios river (Thessaly), and for bringing under cultivation 13,500 ha.

Mention should also be made of:

(1) the works of the Boeotian Cephissus, for the protection of 4,600 ha. against floods and the bringing under cultivation of another 1,000 ha.;

(2) those in Epirus (draining of Lapsista, draining and irrigation of Louros, draining of Acheron and of Margariti); by these protections against floods will be afforded to 10,000 ha., while 11,100 ha. will be brought under cultivation and 14,000 ha. will be irrigated;

(3) those of Pamissos (Messinia) for the protection of 3,200 ha. and the irrigation of 3,700 ha.;

(4) other works (Vromolimnai, Acheloos, Selinous, etc.).

A series of small- and medium-sized works of land improvement have been begun, and will be carried through by the Agricultural Bank within a period of 5 years; the intention is to recover 4,000 ha., to protect 10,700 against floods and to irrigate 3,600.

For the execution of all the works enumerated above provision is made for expenditure as follows:

(1) 622,000,000 drachmas in four years for supplementing and exploitation of the works already accomplished in Macedonia;

(2) 1,400,000,000 drachmas in 10 years for the execution of the large scale works projected;

(3) 160,000,000 drachmas in five years set aside by the Agricultural Bank of Greece for the execution of the small and medium-sized works indicated above.

Costs of upkeep of the works already executed in Macedonia are estimated at 700,000,000 drachmas over some ten years.

HUNGARY.

Hungary, which is situated under the southern slopes of the Carpathians, is for the greater part flat. This plain, which was in the past the floor of the former sea of Pannonia, is irrigated by the Danube, the Tisza, and their tributaries which in their course across the Great Hungarian Plain have a very small gradient. As a consequence, when these rivers were in spate they inundated regularly an area of about 3,800,000 hectares. Owing to the unevenness of the ground, a great part of this flood water did not subside naturally into the river beds. In the absence of proper run-off, the water became stagnant and transformed large areas into marshes, from which fevers spread.

An attempt was made in the sixteenth century to prevent the damage caused by the inundations of the Danube and its tributaries, by means of the construction of elevated local dykes. Works for the systematic regulation of the Danube

and the Tisza were not begun until the middle of the nineteenth century and they were finished, for the greater proportion, in 1875 for the Tisza and in 1896 for the Danube.

Among the most important works on the Danube should be mentioned the regulation of the Upper Danube, *i. e.*, between Pozsony and its confluence with the Vág, and the regulation of the Lower Danube, *i. e.*, between the Iron Gates and the Cataracts.

The principal operations on the Tisza were the straightening by means of numerous cuts – the river was shortened by 450 kilometers out of 1,400 km. – and the construction of dykes 6,380 km. long.

Besides these works, the object of which was firstly to protect the fields from exceptionally extensive flooding, and secondly to improve the conditions of navigation, it was necessary to collect and to drain off the water accumulated in the depressions as a result of inundations, and waters coming from infiltrations and rainfall, which, in the Hungarian phrase, are called “inner waters”. The network of the drainage canals is about 16,000 km. long. Since the level of the Danube and of the Tisza in time of flood is higher than that of the canal waters, it is necessary to force back the canal water into the Danube and the Tisza by means of pumping stations. The 173 pumping stations have a total power of 10,000 H. P. and can force back a volume of water of 224 m³ per second, at an average height of pumping from 1 to 7 metres.

To give an idea of the scope of the operations of regulation, etc. of these rivers, works which are the largest of the kind in Europe, it may be mentioned that 3,800,000 hectares have been successfully protected. The sums set aside for this purpose have amounted to 1,100,000,000 gold francs.

These works have been carried out partly by the State and partly by syndical associations. In Hungary, the regulation properly so called of the rivers falls on the State; the construction of dykes for protecting the lands against floods, the making of drainage canals for the “inner waters” and finally, the erection of pumping stations are the work of the syndical associations.

Mention should also be made of the irrigation works covering a total of 15,500 ha., and the formation of fish-breeding pools on an area of 10,000 ha.

At present the regulation and control of water courses are, so to speak, complete in Hungary. The country now is at the beginning of a new era, that of the utilization of the waters.

The most important hydraulic works are: (1) the development of navigable river courses; (2) irrigation on a large scale, for protecting agriculture against possible droughts; (3) improvement, by utilization of waters, of alkaline soils to an extent of 500,000 ha. approximately. This programme will of course be carried out in accordance with financial possibilities and several decades will be required for its realization. During the execution of these works the Hungarian water service has been developed. At present, this consists on the one hand of the *State Department of Waters*, properly so called, and, on the other hand, of the independent syndical associations placed under State control.

The Department of Waters, attached to the Ministry of Agriculture, includes a technical and a legal department. The first is divided into two sections: (a) the

Department of River Engineering, responsible for the regulation of streams for navigation or for floating purposes, and for the supervision of 48 syndical dyking associations; (b) The Department of Farm Hydraulics, responsible for the regulation of streams which cannot be used either for navigation or for floating purposes, and for all types of soil improvement, as well as for the supervision of 63 syndical associations for irrigating and various types of drainage. Under the Department of River Engineering is included the Institute of Hydrography which undertakes all hydrographic and hydrometric work and flood warnings. To the Department of Farm Hydraulics is attached the National Fishery Inspectorate, the work of which includes the supervision of the fishing and of the fish breeding carried on by 42 fishing associations over 200,000 ha. of water courses and natural lakes and over 10,000 ha. of fish-breeding pools.

The costs of the hydraulic operations are included either in the ordinary budget or in the extraordinary public works budget.

Contributions due from landowners to the syndical associations are collected in the same way as direct contributions. They usually vary between 1 and 3 pengös per annum per hectare.

IRELAND.

Owing to the natural formation of Ireland with its great central plain, several of the principal rivers and their tributaries have a slow course with a tendency to form marshes and to cause floods which take a long time to subside and cause much damage to the crops. The remedy is to maintain in proper condition the water courses into which drainage channels flow, and to ensure that the run off is sufficient. The Department of Public Works is in charge of the land drainage system, and the Drainage Maintenance Act of 1924 empowered the Department to proceed with the necessary work of reconstruction in all the drainage areas requiring attention. The expenses are met by contributions from the Government and from the counties. The County Council are empowered to levy rates, for the costs of carrying out the work and for its upkeep, on the inhabitants of districts benefiting by the operations.

The Arterial Drainage Act of 1925 relates to the drainage by means of canals, which is undertaken through the co-operation of those concerned. As however the undertaking involves operations and calculations, which can only be made by a qualified engineer, relating to claims in connection with lands and waters, with consequent levying of user rates, the Government necessarily intervenes.

Finally, the Minor Schemes Act of 1928 empowers the County Councils to carry out drainage schemes the estimated cost of which does not exceed £1,000 sterling. State aid cannot exceed 25 per cent. of the cost of operations, nor in any case the sum of £250.

Subsidies have been granted, during the last few years, for land reconditioning operations. The original purpose of the land reconditioning schemes was to encourage certain small owners, whose lands were valued at not more than £10 per acre, to increase their value by reconditioning and bringing under cultivation land formerly not arable which they had left as waste. The following

table shows, for each of the five financial years from 1931-32 to 1935-36, the expenditure, the number of owners who received grants in aid and the areas reconditioned.

Years	Number of owners receiving grants	Area of lands reconditioned			Amount of grants made		
		acres	r.	p.	£	s.	d.
1931-32	266	175	0	0	750	0	0
1932-33	2,373	1,918	0	16	8,277	9	4
1933-34	4,083	2,825	2	8½	12,123	11	9
1934-35	3,550	2,420	1	36	10,593	10	6
1935-36	4,192	2,502	2	5	11,652	6	7

The annual credit voted by Parliament for the Irish Land Commission includes a sum for the improvement of the lands with which the Commission has to deal in virtue of the Land Purchase Acts. This expenditure is directed to: (1) the improvement of existing plots: drainage, means of access, etc.; (2) laying out of new plots; (3) operations of dyking, reconditioning of waste land, etc.

During the five year period ended March 31, 1935 the total amount of the expenditure under the head of land improvements has been year by year as follows:

Years	Buildings £	Land improvements £	Total £
1931	61,033	122,021	183,054
1932	54,290	100,816	155,106
1933	63,910	111,106	175,016
1934	74,763	153,249	228,012
1935	125,814	192,909	318,723
Total	379,810	680,101	1,059,911

A confirmation of the importance attached to the problem under review will be found in the fact that the Government of Eire has recently set up a Commission to consider the question of drainage and land reclamation in this country. The terms of reference of this Commission are as follows:

To consider the whole question of land drainage (excluding field drainage) with special reference to the technical, administrative, financial and legal aspects of the problem, and to submit recommendations as to:

(1) How an efficient system of drainage reasonably consonant with requirements and calculated to facilitate future land reclamation can best be secured.

(2) The provisions which should be made for the proper maintenance of existing and future drainage works.

(3) How the cost of drainage works and their maintenance could most equitably be apportioned amongst the various interests concerned.

(4) The changes (if any) in the existing law and administrative system which would be necessary to give effect to the recommendations.

LITHUANIA.

Scientific and planned reconditioning operations for the improvement of humid soils could be put in hand in independent Lithuania only in 1921. Regulation of courses of streams and construction of drainage canals were undertaken by the Ministry of Agriculture, thus enabling farmers to drain their wet lands by means of open ditches or by piping. From 1921 to 1937 inclusive, a total area of land of some 416,000 ha. had been drained by means of canals which attain a total length of 17,000 km.

The greater proportion of these works were carried out from the State Treasury Funds under the supervision of the technical staff of the Ministry of Agriculture. The owner benefiting has to repay a part of the costs by yearly instalments, and the remainder is regarded as a State subsidy.

It should also be mentioned that farmers wishing to effect complete drainage of their land may apply for the technical assistance of the experts in agricultural improvements of the Ministry of Agriculture and of the Chamber of Agriculture, and for loans for agricultural improvements granted out of Treasury Funds on favourable terms.

POLAND.

The essential object of land improvement in Poland is the improvement, from the agricultural point of view, of farm lands in regions where the soil is either too damp or too dry, together with the reclamation and conversion into arable land of barren tracts, such as peat-bogs, marshes, etc. By a law passed on October 26, 1921, State assistance was provided for this work and further legislation on regulation of waters was introduced the following year providing, among other matters, for the inauguration of co-operative hydraulic associations, mainly concerned with large-scale land improvements. In 1925 a State credit was opened for the purpose of land improvement and from this fund the following subsidies, reaching a total of 41,143,741 zlotys, have been granted (1).

Year	Zlotys	Year	Zlotys
1925	3,743,037	1932-33	595,830
1926-27	3,170,000	1933-34	1,050,000
1927-28	4,667,260	1934-35	1,000,000
1928-29	7,152,000	1935-36	1,000,000
1929-30	10,081,088	1936-37	1,100,000
1930-31	5,806,526	1937-38	1,100,000
1931-32	678,000		

An extraordinary sum of 25,789,000 zloty not included in the budget of the Ministry of Agriculture and Agrarian Reform, was granted for the agricultural years 1933-34 and 1937-38.

Finally, by a Presidential Decree dated March 22, 1928, the State Agricultural Bank was authorized to issue land improvement bonds.

(1) Cz. ZAKASZEWSKI, St. WAWRZKOWICZ, St. RYCHŁOWSKI, St. SIENKOWSKI: Zagadnienie melioracji rolniczych w Polsce. Warsaw, 1938.

State intervention in the carrying out of essential improvements usually takes the form of financial aid in meeting the cost; indeed, when public security is involved the State may assume entire responsibility for the improvements in question. Any scheme is subject to State intervention, not only when the work is in progress, but also when the plan is still under discussion.

As a general rule private persons are not compelled to carry out land improvements; if, however, they are opposed only by a minority of the members of a hydraulic association, the association may be compelled to contribute to the cost of a scheme indispensable to the improvement of lands owned by the majority. Improvements may also be carried out, even if the majority do not approve, but only when such schemes are the result of a modification in the agrarian structure, re-parcelling, etc.

The State Agrarian Bank finances schemes for land improvement by means of loans to hydraulic associations in the form of bonds redeemable in fifteen years. Such loans are usually granted for purposes of drainage, drying and irrigation of land, the improvement of grazing land and the establishment and reconditioning of fisheries, etc. The total amount granted for such improvements by the Bank during the period 1925 to 1937 amounted to 128,129,140 zlotys. These loans are guaranteed in accordance with the provisions of the Regulation of Waters Department, which makes them preference credits.

State intervention may here take the form of a reduction of interest; the special fund mentioned above is employed for this purpose.

*Land Improvements effected by the Ministry of Agriculture
and Agrarian Reform in the course of the years 1933-34—1936-37.*

Years	Works			Simple reconditioning of land		Expenditure Zl.
	Regulation of water courses km.	Canals km.	Protective works km.	Dyking m ²	Levelling of land m ²	
1933-34	219.7	85.1	101.7	1,612,706	2,392,044	6,570,511
1934-35	291.5	214.5	100.8	3,456,788	2,180,024	9,072,163
1935-36	351.5	113.4	114.5	3,063,450	2,333,420	9,508,616
1936-37	535.4	232.4	97.0	4,039,971	2,461,618	10,217,379
Total . . .	1,398.1	645.4	414.0	13,372,915	9,367,106	35,368,669
<i>Upkeep of Works and Repair of Damage caused by floods.</i>						
1933-34	1.1	1.0	—	24,174	578	214,515
1934-35	—	—	—	16,533	5,490	233,720
1935-36	0.4	—	—	13,619	20,891	315,609
1936-37	21.3	—	—	25,368	7,146	297,996
Total . . .	22.8	1.0	—	79,684	34,105	1,061,740
General total . . .	1,420.9	646.4	414.0	13,452,599	9,401,211	36,430,409

It is only since 1925 that the State has directly undertaken land improvement, but progress since then has been rapid. The figures for the years 1933/34-1936/37 are given on page 541.

The total area of land protected against flooding of streams amounts at present to no more than some 2 million hectares; the area which is still in need of protection amounts to about 16 million.

PORTUGAL.

Here the State has taken into its own hands the study and realization of land improvement. According to Law No. 1949, of February 15, 1937 (1), it is the province of the State to study and carry out improvements in drainage of agricultural land when of economic and social interest, to direct and supervise their upkeep and to utilize reclaimed land in the way likely to be of the greatest social benefit. Among such operations are included the regulation of public waters for irrigation; drainage, drying and protection of lands, preparation of land for irrigation, and the deposit of alluvium or other methods of raising the level of land. These works will be carried out by the self-governing Council for agricultural hydraulic works on authorisation by the Government.

The State will recover the sums expended on the study, organization and realization of schemes by means of an annual charge per hectare, known as the "irrigation and land reclamation levy". This will equal, for each scheme, the amortization over a period of fifty years of the expenditure per hectare, interest being calculated at the rate of 4 per cent. for first class, 3 per cent. for second class and 2 per cent. for third class land. The actual value of the instalments to be paid may never exceed the plus-value resulting from the works carried out. This yearly instalment forms a real charge on the property and will be collected with the land-tax.

As soon as the works are authorized the respective irrigation association will be formed. This association will have corporate rights and will consist of the owners, usufructuaries (holders in emphyteusis), etc. of the lands in question.

Land affected by the improvement works which belongs to or is transferred to the private desmesne of the State, will be handed over to the Land Settlement Committee (*Junte*) for division into farms varying in extent from 1 to 5 ha. These will be allotted to persons who either do not own land or whose land is inadequate for the maintenance of a family: such persons must be known to have capacity for farming and to be hard-working.

Farms thus allotted may not be subdivided without the sanction of the Government.

A Farmers' Mutual Credit Bank, affiliated to the National Credit Bank, will be attached to each of the irrigation associations and any farmer whose land is affected by improvement schemes will be entitled to become a member.

(to be continued)

G. COSTANZO

(1) ANNUAIRE INTERNATIONAL DE LÉGISLATION AGRICOLE, 1937, p. 439. International Institute of Agriculture, Rome, 1938.

INTERNATIONAL CHRONICLE OF AGRICULTURE**ESTONIA**

The situation of Estonian agriculture undeniably improved during the years 1936-1937 and 1937-38. This improvement is due in part to a rise in the prices of agricultural products on home and external markets, in part to an increase in agricultural production.

Production costs and, in particular, wages also rose, it is true, along with the selling prices, but the rise in the latter was more than the increase in costs. According to the Chamber of Agriculture, a very high net return was obtained in 1936-37, amounting to 4.01 per cent. of the farm assets. Figures are not yet available for 1937-38, but some estimates may be made on the basis of the general trend of agricultural production and on the selling prices of agricultural products. In 1937-38 there was an increase of 10.9 per cent. in production as compared with the previous year. At the same time, wages and the prices of materials used by farmers increased. There were marked rises in particular in the cost of iron, motor spirit and charcoal. The advance in the prices of farm machinery is estimated at 20 per cent. Provisional estimates made on the basis of these data indicate that in 1937-38 the net return was reduced by 22 per cent.

The rise in prices of agricultural products during the last two years is the result of decisive State intervention; to the increase of production two other factors contributed, namely, the enterprise of the farmer and favourable weather conditions.

During 1936 and also in 1937 the area under *cereals* increased both absolutely and relatively to the total area under cultivation. In 1936 the area under cereals was 530,000 ha., and in 1937 it reached 539,000 ha., this latter figure being the highest of the last ten years.

The relative importance of rye and wheat tends to increase. In 1937 these two cereals represented 40.1 per cent. of the total area cultivated, against 38.1 per cent. in 1936. The legislation for the protection of cereals, by which the purchase price of the crop was fixed by the State, induced farmers to increase the area under cereals grown for human consumption.

During recent years there has been an increase in the area under *potatoes*. Between 1936 and 1937 this area was increased by 1,508 ha., to a total of 75,530 ha., the largest in the last 15 years. Mention should be made of the potato crops grown for export. These exports are the subject of special regulation. The growing demand for Estonian potatoes is proof of their quality. The largest consumers are Argentina, Spain, Italy and Portugal.

As a result of the rise in *flax* prices, there has been an increase in areas under flax from 28,360 ha. in 1936 to 31,234 ha. in 1937. In addition, as the yield per ha. has been higher, there has been an appreciable increase in the quantity harvested, but the quality has suffered from the adverse conditions under which the harvest was gathered. In 1938 the shortage of labour resulted in a reduction in the area sown to this crop.

The expansion in the crops already mentioned led to an increase in the total area of arable lands, and to a reduction in the areas under less important crops, such as barley and meslin.

In 1937 the number of *dairy cows* rose to an unprecedented figure and milk production reached a record figure. In spite of the increase in internal consumption, the increase in production was such that the exports of all dairy products returned to pre-crisis levels.

This increase is due to the joint action of certain farmers, the re-organised co-operative selling societies and the State. They share the credit for the production of butter of very high quality. In 1937, at the Berlin International Exhibition, Estonian butter was the object of special estimation and was classed among the best butters in the world.

Butter exports have grown steadily. From 108,379 quintals in 1935 they increased to 109,555 quintals in 1936 and to 131,799 quintals in 1937. The increase continued in the first part of 1938, when exports were 9 per cent. greater than in the same period of 1937.

In recent years, cheese, condensed milk and powdered milk have been exported but in quantities much smaller than those of butter.

Exports of live pigs are becoming larger relatively to exports of pigmeat. Germany and the U. S. S. R. are regular purchasers of these commodities.

I. — MEASURES AFFECTING MARKETS AND PRICES

Organisation of foreign trade.

For the trade in butter, eggs, meat and live pigs, organisations have been set up centralizing the trade and exports of these products.

For *butter*, the Central Union of Co-operative Dairies (*Võiekspor*) was organised in the spring of 1936. All the co-operative dairies producing butter for export belong to this Union. Members of the administrative organs of the Union are in part elected by the co-operative societies, in part appointed by the Government.

For exports of meat of *live pigs*, a society known as *Lihaekspor* has been formed. This society has replaced the four earlier co-operative societies which used to produce and export bacon, and has now a monopoly of these operations. The first administrative organs of this society were appointed by the Government but in future they will be elected by the representatives of farmers who are members of the society.

By the terms of a special law, the co-operative societies for the sale of *eggs*, together with some individual sellers, are grouped in a central body known as *Munaekspor*, the first administrators of which were appointed by the Government. At the beginning of 1938 the representatives of the member societies proceeded to elect new members.

In addition to these exporting bodies, the activity of the *Riigi Viljasalv* on the market of agricultural products calls for mention. This organization was set up in 1937 and has a wide influence on the market and on the prices of cereals. The *Riigi Viljasalv* is administered under statutory authority by representatives of the growers who are also sellers of cereals, by representatives of consumers and by State officials. It undertakes the import and export of cereals and of concentrated stock feeds.

On the home market, the *Riigi Viljasalv* purchases and sells wheat and rye at prices fixed by the State in competition with the dealers.

Guaranteed prices of various agricultural products.

First quality *butters* and *cheeses* intended for export have the advantage of guaranteed prices which necessarily affect the prices of dairy products offered on the home market. Guaranteed prices vary according to season, and are lower in summer than in winter. In 1936-37 they were higher than in 1935-36; and in 1937-38, their level was again raised, so as to cover the rise in production costs. During these years, a supplementary payment from the special fund was necessary to maintain the guaranteed prices.

No supplementary payment from the special fund was necessary to maintain the guaranteed prices of *eggs, bacon and pigmeat*. On the contrary, it was found possible to supplement these funds, from the margin between export prices and guaranteed prices. In the spring some supplementary payments were made for eggs, but by the autumn prices were high enough to replace the sums advanced from the special fund.

Prices of *wool* of Estonian origin have also been guaranteed recently. In order to increase wool production and to improve the product a supplementary payment, which has reached 30 per cent. of the ruling price, was granted by decree to the two first qualities.

With the object of expanding the market for *vegetables and fruits*, and of apples, and berries in particular, organizations were set up in 1936-37, with the help of State advances, for production of fruit juices. These bodies purchase apples and berries in large quantities in the autumn, and sell them in the course of the year in the form of fruit juices. At the same time, restrictions were placed on the production of beverages manufactured with artificial acids. A propaganda campaign was undertaken, the State meeting expenses, for the consumption of fruit juices and honey.

II. — MEASURES AFFECTING AGRICULTURAL ECONOMY IN GENERAL

Land clearing.

Land clearing was undertaken as part of the production policy. Operations were begun in 1935 and they were extended in 1936 and 1937 as a result of the exemptions granted by the State.

The object of these operations is to transform unproductive grazing land into cultivated and highly productive lands.

On the small farms, the extension of cultivated land makes it possible to employ labour fully. On the large farms, it renders possible the organization of labour on more scientific lines and an advance in the mechanization of farm work. The objective is to raise the standard of living of the farming population by increasing production and the return from agriculture.

From 1935 to 1937, as the result of encouragement awards, some 15,000 farms—a figure representing approximately 12 per cent. of the total number—have brought waste lands under cultivation, adding thereby 26,800 ha. or 20 per cent to their cultivated area. The trebling of these clearing operations within the next five years is planned. All work and the award of premiums are supervised by councillors of the Chamber of Agriculture.

The work is much facilitated by the existence of special tractor stations which it has been possible to organize with the help of State advances and exemptions. At the beginning of 1938 there were available at these stations 300 tractors with the ploughs and harrows required for these tillage operations.

Agricultural credit.

In 1936 and 1937 loans were extended to cover the purchase of tractors and farm machines required for the work of bringing waste land under cultivation. In 1938 credits were granted for the purchase of seed drills and potato lifters.

The Land Mortgage Bank of Estonia grants these agricultural credits for periods varying between 3 and 5 years and at rates of interest varying between 2 and 3 ½ per cent., either directly or through the intermediary of the local co-operative banks. Re-

tween 1935 and 1938 the former borrowings of the dairy societies contracted at a high rate of interest were converted into loans for a period of twenty years and at rates of interest from 1 to 3 per cent. These conversion operations were financed by the State, and were considered necessary for 20 per cent. of the dairy societies. At the same time these societies have been merged into larger and more stable undertakings, a development which has had the satisfactory result of imparting stability to the dairy societies, which thus inspire the public with more confidence. In consequence of these measures there has been an expansion in the milk trade.

Co-operation.

All the co-operative societies have been placed by legislation under a single Chamber of Co-operation with a view to centralizing their management. This Chamber, which began its work at the end of 1936, is composed of five sections, viz. co-operative banks, co-operative purchase and selling societies, co-operative insurance societies, co-operative transformation societies and export societies.

This Chamber provides the co-operative societies with a central organization which, through its different sections, can examine the claims and requirements of the member societies. At the beginning of 1938 the number of co-operative societies affiliated to the Chamber of Co-operation was 3,946.

Vocational organisation.

The Chamber of Agriculture, founded by a law of 1935, began to function actively in the following year and has exercised a great influence on the vocational organization of farmers. The new Chamber of Agriculture is superimposed on 72 local groups known as "conventions". It consists of the representatives of these conventions and five members appointed by the Government. It receives State subsidies for agricultural improvements. Its own expenses and the costs of administration are met by farmers' contributions collected with the State taxes. In addition, income is drawn from certain undertakings, for example, buildings office, transport repair office, etc.

Only farm operators whose farms afford a livelihood are grouped in the Chamber of Agriculture. Small farmers and farm workers are grouped in a special Chamber.

By a law of 1936 owners of lands on the sea coast or on lakes who derive their main income from fishing are grouped with other fishermen in the Chamber of Fishery, which guards their interests and acts as an advisory body.

Inspection of agricultural implements.

In 1937 State inspection of agricultural implements was introduced by law, the object of the measure being to reduce the imports of unsuitable implements and the losses occasioned by their use.

A strict control was made necessary by the increase in the import and utilization of agricultural implements during recent years. The import figures were:

Year	Weight quintals	Value Estonian crowns
1934	7,798	708,000
1935	16,217	1,529,000
1936	29,359	2,647,000
1937	40,398	3,783,000

Immigration of Polish farm workers.

With the increase of industrial activity it became increasingly difficult to obtain sufficient farm labour. For this reason in 1937 farm workers from Poland were introduced into Estonia for the first time, through the Chamber of Agriculture. The state of the labour market made the farming situation still more difficult in 1938, and, consequently, in the spring of that year it proved necessary to introduce Polish workers in larger numbers.

FINLAND

The agricultural situation in Finland has shown decided improvement during the last few years. The results of farm accountancy have been more favourable in Finland than in any other of the Baltic and Scandinavian countries. Profits represented 6.1 per cent. of the total capital invested in agriculture in 1934-35; in 1935-36 however there was a setback and they fell to 5.6 per cent. rising again in 1936-37 to 7 per cent. The figures for 1937-38 are not yet available, but it appears that improvement has been continued.

An improvement in the situation appears also as regards agricultural indebtedness: the number of forced sales of farm property which in 1933 had reached a maximum of 3,296, fell to 2,651 in 1934, 2,020 in 1935, 1,080 in 1936 and to 648 only in 1937. During the first six months of the current year, there have been only 151 forced sales and the provisional figures for the following months point to a further decline.

I. — MEASURES AFFECTING MARKETS AND PRICES

Protection of the price of rye.

In Finland the most important cereal for human consumption is rye: which is the chief foodstuff of the population. The quantities of rye harvested have varied during recent years, gradually getting nearer to consumption requirements. It has however been so far impossible to attain complete self-supply; and for this reason foreign non-milled rye has been imported, as in the past: 67,000 tons in 1936 and 71,500 tons in 1937.

Customs protection of rye has been modified during the last few years more than once, both as to method of protection and also as regards the quantities it is allowed to import.

In consequence of the fall of rye prices on the world market, customs duties on rye were increased at the beginning of 1930 by 75 penni to 125 penni per kg.; which since has remained the maximum protective duty. As regards the methods of the customs protection, the import duty has been sometimes variable in accordance with a sliding scale, sometimes a fixed duty. In 1936 it was fixed and amounted to 110 penni per kg.; being lower by 15 penni per kg. than the former maximum rate. In the course of 1936, it was seen that this was inadequate protection; and so, in the customs tariff of 1937, there was a return to the import duties varying according to a previously established sliding scale, and the maximum duty for rye was again raised to 125 penni per kg. The aim was thus to stabilise and maintain the price of rye at a level allowing variations within the limits of 225 penni to 250 penni per kg.

The import duty on rye as governed by the sliding scale, under the form just described, gave rise to criticisms. On the principle that the price level of rye should be protected up to 2 marks 50 penni per kg., the law of September 21 1937 on the customs duties in 1938 on certain cereal products fixed the basic duty for rye at 10 penni per kg., when the price of imported rye is 2 marks 40 penni at least per kg. If the price of imported rye is less than 2 marks 40 penni per kg., during the first 20 days of the preceding month, the duty on rye is increased for the following month in the proportion of 80 per cent. of the difference; it was further enacted that the Ministry of Agriculture should fix, on the proposal of the Government Cereals Depot, the monthly price of imported rye, taking as basis the market prices of supplies offered during the first 20 days of the previous month.

The import duty on rye flours produced from the milling of the grain with the bran has been raised to 15 penni per kg., increased by the customs duty on imported non-milled rye. The import duty on rye flours without bran has been fixed at 35 penni per kg., plus the duty on non-milled rye multiplied by 1.5.

Encouragement to wheat-growing.

The import duty on wheat was lowered at the beginning of 1936 from 135 penni to 125 penni per kg. The duties on wheat flours with bran were reduced by 10 penni per kg., that is a reduction from 150 penni to 140 penni per kg., and those on wheat flours without bran and on wheat groats were lowered from 240 penni to 225 penni per kg. At the same time it was decided to restore to millers the customs charges of 35 penni per kg. for the proportion of foreign wheat replaced by home grown wheat, the object being to encourage the national wheat production. The result has been that the total crop of wheat which in 1934 had been 89,000 tons and 115,000 tons in 1935, rose to 143,000 tons in 1936 and to 172,000 tons in 1937. In 1938 the wheat crop amounted to 209,000 tons.

In view of the big rise in the price of wheat in 1937, the duty on wheat was lowered to 100 penni in the customs tariff of 1938, that on wheat flours with bran to 115 penni, and the duty on flours without bran and that on wheat groats to 185 penni per kg.

The fluctuations of wheat prices owing to the application of this system induced importers to sell their foreign wheat to millers, either as home-grown, or as blended with home-grown wheat. To put an end to this practice the following provisions were laid down by the law of April 17, 1936: every person importing wheat, or engaged in the trade in imported wheat, is required to make at the office of the Government Cereals Depot, a declaration of importation, indicating the proposed utilisation of the imported product or its resale if intended, and to keep an accountancy statement, open for inspection.

Premiums for stabilisation of the prices of animal products.

Stock-breeding has continued to benefit by premiums for the stabilisation of prices of animal products. The 1936 budget included a credit of 60,000,000 marks and further an estimated additional credit of 23,000,000 marks, to be applied to this end up to a total equal to that which the Government should derive from the special tax on margarines and forage products. The same credits appeared in the budgets of 1937 and 1938. Premiums have been granted for exports of butter, cheese, eggs, pig-meat, live pigs, beef and reindeer meat. The bases for the award of these premiums

have been fixed by the Cabinet of Ministers at the beginning of each financial year, and they have been assigned in the proportion in which the prices of the products enumerated have varied on the international markets. The aim has been to ensure to the small farmers by this means a price corresponding to the average cost of production.

The total expenditure which had to be met by the State for these premiums in the course of the years 1933 to 1937, amounted to 495,700,000 marks; the largest part relates to butter (293,800,000 marks). In any case this expenditure is comparatively small, in view of the value of the sale of stock-breeding products in Finland, *viz.*, from two to two and a half milliards of marks per year, or a total of nearly 12 milliards of marks for the five years under review; the expenditure on stabilisation premiums thus do not represent more than about 4 per cent. of the total amount.

Breeding of reindeer, hunting and fisheries.

Reindeer breeding has been encouraged, by export premiums, and by the grant of credits. Fishing has been also supported by means of export premiums; these amounted in 1935 to 500,000 marks, in 1936 to 600,000 marks and in 1937 to the same sum. A new law of April 6, 1934 regulated the interests of hunting; the exercise of the right to hunt was made subject to the obtaining of a permit; the issue of these permits brings in a sum of about 1,600,000 marks annually, which are devoted to the improvement of hunting conditions.

Subsidies to sugar-beet growers.

For this purpose the Diet granted in 1936 and 1937, a credit of 2,000,000 marks for each of the two financial years, and in 1938 an additional 4,500,000 marks. The total of the premiums has been from 2.5 to 3 penni per kg., for beets delivered to the sugar refinery of Salo, and of 5.5 penni for those delivered to the Antrea sugar refinery.

II. — MEASURES AFFECTING AGRICULTURAL ECONOMY IN GENERAL

Adjustment of farm indebtedness.

In consequence of the economic improvement it has been possible to note in 1936 there was a decided decrease in the number of operations connected with the consolidation of farmers' debts, which are within the province of the Bank of Mortgage Credit (Osakeyhto Maakinteistopanki). The number of applications for loans for the purpose of such consolidation which has been presented to this Bank had in 1933 attained 4,371; in 1934, they still amounted to 2,672; in 1935 not more than 1,362 applications were registered and in 1936 there were only 626. At the end of 1936, the situation of farm indebtedness had become normal; hence it was considered unnecessary to continue the law on consolidation of certain agricultural debts, and since that time no fresh applications for consolidation loans have been accepted. In regard to previous applications, 514 new loans for consolidation were granted in 1937, and 55 in the first six months of 1938. The policy of consolidation of agricultural debts may now be considered as having served its purpose.

NETHERLANDS INDIES

The most acute stage of the economic depression in the Netherlands Indies may be said to have ended with the first half of 1936. In almost all districts there had been adaptation to the depression, and exports of agricultural products such as rubber, coffee and copra, on which the prosperity of the Netherlands Indies depends, were increasing considerably, with rising prices. The progress of the sugar market was less favourable. Record harvests were reported in regard to rice and maize, two very important products for the people of Java and Madura.

The devaluation of the Netherlands-Indies florin, which took place on September 27, 1936, the same date as that of the Netherlands florin, led to a certain rise in prices, thus stimulating economic life so that the improvement which was already apparent became more noticeable. The price rise registered in nearly all parts of the world during the second half of 1936 and the first six months of 1937 was accentuated in the Netherlands Indies owing to the fact that these islands produce raw materials, the prices of which are much influenced by the general situation.

A new downward movement took place during the second half of 1937 and the prices of products for export fell to a much lower level. This led to another, but less serious, depression. A favourable factor in the situation was the fact that the 1937 harvest of food crops, although it did not attain the exceptionally high yield of the preceding year, was very good.

Towards the middle of 1938 the international market situation began again to show some improvement and from that time the economic position of the Netherlands Indies has justified a more optimistic outlook. In 1938, the harvest of food crops has again fallen below that of the preceding year, although still normal.

During the crisis the Netherlands-Indies Government refrained, generally speaking, from intervention in price movements; only in the case of a few products did it attempt to exercise any influence over prices, either along national lines or in collaboration with other countries. This somewhat passive policy was abandoned after September 27, 1936, the date of the depreciation of the Netherlands and Netherlands-Indies currency. At first the government sought to restrict as far as possible the rise in prices, more especially that resulting from speculation. The principle of maximum prices for goods, services and rents was introduced by the decrees of October 6, 1936 and March 12, 1937, which remained effective until March 1 and September 1, 1937 respectively. This principle was, indeed, applied on many occasions and thus the government succeeded in restraining within certain limits the price rises consequent on the depreciation of the florin. As there was no longer any object for the decrees they were not prolonged beyond September 1, 1937.

By a decree dated October 26, 1936 and remaining in force until January 1, 1938 and subsequently until January 1, 1939, import duties were considerably reduced on various products, such as wheat flour and cotton fabrics, which materially affect the cost of living.

A special marketing and price policy was adopted in respect of various agricultural products, in some cases accompanied with restriction of production, in others not. Marketing regulations without restriction of production were enacted for rice, kapok, coffee, etheric oils, cassava or manioc products, resins and tobacco; on the other hand restrictions of production accompanied the marketing regulations in respect of sugar, tea, quinine and rubber.

The various measures of this kind are dealt with below, followed by an account of the most important efforts made with a view to increasing agricultural production.

I. — MEASURES AFFECTING MARKETS AND PRICES

Regulation of market and prices unaccompanied by restriction of production.

Rice. — In 1933 the great reduction in the prices of imported rice (that of Rangoon and Indo-China), already quoted below those of the national product, threatened to ruin the market of the Netherlands-Indian market. This state of things was only partially due to the maintenance of the gold-standard in the Netherlands-Indies, since only the currency of British India had been depreciated, that of Indo-China remaining as before. The actual cause was rather the super-abundant rice-harvests in other countries. An additional reason was the fact that the regions with a surplus production (such as large parts of Java, Bali, Lombok and the south-west of Celebes) were unable, owing to the high internal transport charges, to supply rice to the districts where there was a demand (namely, Sumatra and Borneo) at the same price as it could be obtained from foreign countries, the cost of transport in international trade being considerably less.

The market in soya beans, which in the Netherlands Indies are consumed as an adjunct to rice, was seriously affected by the immense quantities of soya which were imported from Manchoukuo at a low price.

The conditions described above led to the introduction of measures designed to ensure to the national production of rice and soya adequate markets and reasonable prices. These measures consisted in prohibitions or restrictions of the import of rice and soya; a duty on their importation, an adjustment between the high prices in the Indies and the low prices in other countries; and, lastly, the organization of the transport of rice and soya beans from the regions in Netherlands Indies with a surplus to those in which there was a demand.

The end of the great depression of 1929-36, the depreciation of the Netherlands Indies florin in September 1936 and the temporary trade boom which marked the end of 1936 and the beginning of 1937 did not result in renunciation of the principle embodied in these measures; the import duty on rice was, however, abolished in November 1936. On the other hand, the regulation of the rice market has been definitely developed so that rice markets and prices are now to a great extent influenced by the government. Each year, in collaboration with representatives of the trade and of the rice husking factories, the government fixes the normal prices corresponding to the market situation. Undoubtedly the prices actually paid do not always coincide with these although the difference is not very considerable. The real aim of the Government price policy is the stabilization and balancing of rice prices both in space and time.

Kapok. — The situation of the kapok market has not been altogether satisfactory from any point of view. The severe competition among the exporters resulted in a price decline which was not justified by the actual situation of the market. Moreover, growers' prices of raw kapok have been greatly depressed owing to corrupt practices in the trade facilitated in part by the extremely unequal quality of the quantities of kapok sold. A considerable proportion of these abuses were suppressed by the decree concerning kapok, issued in 1935, which provided for the establishment of a central kapok bureau. The government and the central kapok bureau founded an association of exporters with the object of eliminating competition among exporters by fixing minimum prices at which kapok may be sold to foreign purchasers, of rendering uniform conditions of sale and establishing a limited number of sample types. Further, an

arbitration commission has been formed and entrusted with power to settle disputes. Firms engaged in processing of raw kapok have been compelled to take the measures necessary for the improvement of kapok for export. Finally, provision has been made for enabling native growers to obtain more detailed and accurate information regarding export prices and also growers prices; these latter are regulated by the former.

Coffee. — By virtue of the Coffee Orders of 1937 a coffee fund has been established for the protection of coffee-growing. Among other objects it will be used to promote the observance of sound trade usages and the development of credit and trade organizations.

Etheric oils, manioc products, resins and tobacco. — Similar measures were introduced at the end of 1937 and the beginning of 1938 in regard to etheric oils, manioc products, resins and tobacco. For each of these products a central bureau has been formed for the purpose of improving the production, manufacture and sales.

Regulation of the market and of prices accompanied by the restriction of production.

Sugar. — The Chadbourne agreement of 1931 imposed a limit for the export of sugar from Java, which became effective the same year. But in view of the fact the stocks of sugar in the Netherlands Indies were exceptionally large, the government felt that it was necessary to restrict exportation to a far greater extent than had been anticipated by the agreement. Consequently, the sugar enterprises of the Netherlands Indies entered on a voluntary undertaking to reduce their production. In 1936, after the expiration of the Chadbourne agreement, and during the period that followed in which no formal agreement existed, a restriction of exports and at production was practised in the Netherlands Indies. The new international agreement, which was concluded in London on May 6, 1937, became effective for the Netherlands Indies on September 1, 1937, the export quota being fixed at 1,050,000 metric tons. By a later decision of the International Sugar Committee this quota was reduced on April 1, 1938 by 5 per cent. for the current year of restriction (September 1, 1937 to August 31, 1938), and thus to a quota of 997,500 metric tons.

The importance of the restriction effected during these last years will be seen from the following figures: the sugar production of Java had been approximately three million metric tons during the agricultural year 1929; during the three agricultural years 1937, 1938 and 1939 it has been limited to 1.4, 1.4 and 1.5 million metric tons respectively. The embargo which in 1934 had been placed on imports for the period of one year, was extended for a corresponding period each successive year.

Tea. — The International Tea Committee maintained the restriction rate of 17.5 per cent. for the year April 1, 1936 to March 31, 1937. The improvement in prices in 1937 made it possible to reduce this proportion to 12.5 per cent. for the year 1937-38.

The international restriction agreement, valid for five years, expired on March 31, 1938 and was replaced by a new agreement of the same duration. In consideration of the favourable situation of the tea market the restriction rate was further reduced to 7.5 per cent.

In conjunction with the international regulation various measures were taken for the protection of the national tea production. At first minimum growers' prices were fixed, based on the international wholesale prices. But, as some tea planters found no sale for their product, owing to the large supply, while others succeeded in selling a disproportionately large share, the Kingma plan was introduced, by which certain sale days and quotas were allotted to the different planters.

Quinine. — The restriction of the export of quinine and of cinchona cultivation, introduced in 1934, expired April 1, 1937. It was replaced by a new regulation intended to restrict the sale of cinchona bark and cinchona tree growing, which is to remain in force until 1947.

Rubber. — In accordance with the International Rubber Convention the basic export quota allotted to Siam, British India and Burmah was increased as from 1935 and that of the Netherlands Indies as from 1936. This last named increase was resolved because the Netherlands-Indies Government, in spite of all its efforts, had not succeeded in keeping the export of rubber within the prescribed limits. This infringement of the regulation was due to the fact that, when the International Rubber Convention was concluded, the productive capacity of the native plantations was under-estimated; moreover, during the crisis the native population was compelled to rely for subsistence on the production of rubber, far more than in the past. In these circumstances, the export duty on native-grown rubber, imposed up to that time on the most of the producing regions with a view to restricting the export, had, in spite of a further considerable rise, little effect and the export quota was exceeded in certain regions. On the other hand, in districts where native rubber growing is subjected to individual restriction (Banka and its dependencies, the circumscriptions of Tandjong-Pimang, Atjeh and its dependencies, the rubber-growing districts on the east coast of Sumatra and Tapanoei) the government had no difficulty in keeping the exportation within the required limits.

An increased quota was granted to the Netherlands-Indies only on condition that the government would in future prevent any exceeding of the quota. Hence, from January 1, 1937 individual restriction was introduced in all the regions where hitherto the export of native-grown rubber had been restricted by an export duty; that is to say, in Benghalis, on the west coast of Sumatra, Indragiri, Djambi, southern Sumatra (which includes Palembang, Benkulen and the districts of Lamponga), the western circumscription of Borneo, and the southern and eastern circumscriptions of Borneo and Menado.

The tendency to weaken which prevailed on the rubber market in 1935 had the effect of raising the rate of restriction to 25 per cent. for the first quarter of 1935, 30 per cent. for the second, 35 per cent. for the third and 40 per cent. for the fourth. The market situation has slowly improved since 1937 and the restriction rate has been gradually reduced, falling to 10 per cent. for the last quarter of 1937. In consideration, however, of the new market situation it was again raised to 30 per cent. during the first quarter of 1938, 40 per cent. during the second and 55 per cent. during the third.

II. — MEASURES AFFECTING AGRICULTURAL ECONOMY IN GENERAL

Encouragement of agricultural production.

In consequence of the difficulties connected with exportation and the fall in prices, plantation owners were not able to maintain experiment stations for rubber, tea, coffee, cacao and cinchona.

For this reason, and in accordance with various decrees issued during the period 1933 to 1936, light duties were imposed on the export of these products and the proceeds were applied to assisting private experimental stations and, in the case of rubber and tea, to the examination of possible new utilizations of these products and, in a general way, to promoting their consumption: some of the proceeds were used to ensure the continuation of scientific research.

The generally very low standard of education among the native population makes difficult the encouragement of native agriculture. Apart from organising educational and advisory services, the government is giving very careful attention to plant breeding, to the encouragement of the growing of improved and more productive varieties, and to the search for new crops and for improved methods of fertilization; the use of modern farm requisites, farm machinery and implements; the construction of large scale irrigation works; the extension of catch crops, so as to obtain two or even three harvests annually; the promotion of sales by means of the publication of reports on the market situation and general information. Attempts at horticulture on the part of the native population have been encouraged by the establishment of gardens for plant trials and plant breeding, by instruction, and by stimulation of exports and by the supplying of information respecting foreign markets.

Internal colonization (land settlement).

The great density of the population in Java, especially in the centre of the island, has led the government during the last few years to encourage migration from these regions to other parts of the Netherlands Indies, more especially Sumatra. At first these attempts at land settlement had little success owing to the heavy expense of clearing and irrigating the land. In 1932, however, a new method was introduced and more satisfactory results were obtained. The government then decided to undertake the clearing at its own expense and to establish on the land, thus rendered cultivable, centres of colonization on a sound economic basis. The settlers installed in these centres naturally attracted others from their own former localities. The travelling expenses of these newcomers were defrayed by the government and plots of land were given to them for clearing. In this way from 15,000 to 20,000 farmers were installed during the years 1935 and 1936, and a further 20,000 in 1937.

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MONTHLY BULLETIN

OF

AGRICULTURAL ECONOMICS AND SOCIOLOGY

1938

No. 12

THE SOCIAL INCOME OF AGRICULTURE IN EUROPE (1)

III.

Social income in the following countries: Czechoslovakia, Poland, Latvia, Lithuania, Estonia.

CZECHOSLOVAKIA.

The proportion of the farming population was 39 per cent. in the former State as a whole; in Bohemia 30 per cent. only and in Moravia 38; in Slovakia it was as high as 60 and in Ruthenia 67 per cent. The greatest density of cattle and pigs and the highest crop yields were however in Bohemia.

Cereal production in Czechoslovakia was nearly equal to food requirements, and live stock numbers were adequate; commercial crops, especially sugar beet, were also grown. Wheat growing had become more important than formerly and the total quantity of wheat as compared with rye was as 3 to 2. The average potato harvest reached the high figure of 80,000,000 quintals.

Stock farming in Czechoslovakia equalled food crops in importance, and on the arable lands the adoption of the modern system of stall feeding and the use of artificial feeds and cake, had led to the production of large quantities of meat and dairy products. Pig numbers were reconstituted and again reached the high figure of 1900, viz., nearly 3,000,000 head. Sheep farming is satisfactory in the Danubian plain.

Vine growing is carried on mostly in Slovakia, and orchard cultivation in Bohemia. Fibre crops are chiefly localized in Slovakia, while in Bohemia and Moravia they have been replaced, at least on the most fertile arable lands, by sugar-beet, the crop covering nearly 180,000 hectares and yielding up to 55 million quintals of beet.

(1) See No. 10 and No. 11 of the *Monthly Bulletin of Agricultural Economics and Sociology*.

Czechoslovakia was well able to obtain from its soil almost all the food-stuffs required by the density of its population and even to export timber and timber products, wines, sugar, preserved foods, etc.

Among the main problems which the Government had to solve from 1927 onwards were: the fixing of a customs tariff, price regulation and the marketing of agricultural and manufactured products. A National Council was set up to submit, on its own initiative or at the request of the Government, any suggestions likely to improve the earning capacity of agriculture, while cereal prices are regulated by the Czechoslovakian Cereals Company, created at a later date. After regulating the milk and dairy produce market the Government took steps to limit production of pigs and artificial fats.

Stabilisation of cereal prices has been of considerable advantage to Czechoslovak agriculture. In 1934-35 farms in the western and eastern cereal-growing regions obtained a return on own capital nearly three times as large as in the previous year (Graph I).

The margin between prices of agricultural products and of manufactured commodities decreased, as shown by the following figures supplied by the Institute of Farm Accountancy and Rural Economy of the Czechoslovak Republic:

Price index-numbers of agricultural products.

(1913-14 = 100),

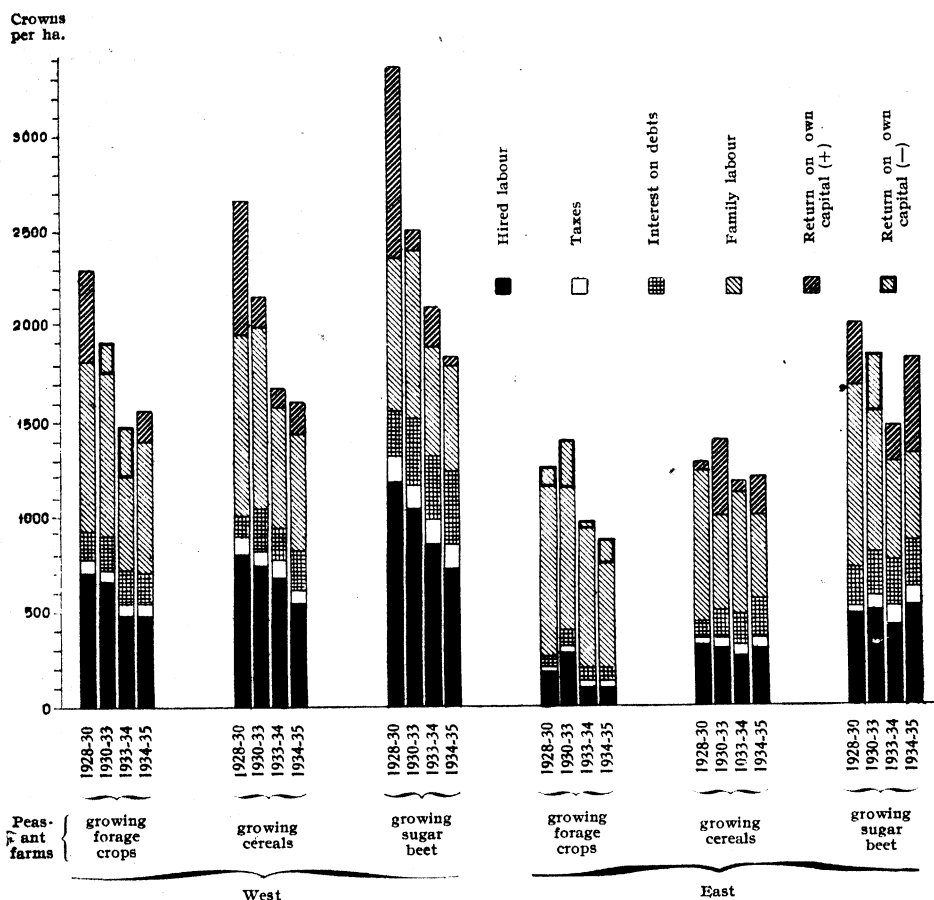
Year	Crop production	Animal production	Total	Price index-numbers of manufactured commodities
1925-29	880	769	820	925
1932	492	533	509	828
1933	497	488	495	784
1934	592	436	511	762

The loss occasioned to the farmer by this margin became steadily less from 1932 onwards, as shown by the following figures, except in the forage-growing farms in the East where this loss was again larger in 1934-35, and in the sugar-beet farms of the West where the losses become heavier each year.

Profit or loss on total farm assets in crowns per ha.

	West				East			
	1927-30	1930-33	1933-34	1934-35	1927-30	1930-33	1933-34	1934-35
Farms engaged in growing:								
(a) forage crops. .	323	1,079	988	576	704	848	483	618
(b) cereals and root crops	242	950	815	723	489	1,076	464	370
(c) sugar beet. . .	41	305	944	1,131	264	1,012	332	62

The figures relating to the gross return and to production costs for Czechoslovakia not being available, the causes of these variations in the loss on total farm assets cannot be studied; we pass to a consideration of the general trend of the social income.

GRAPH I. — *Czechoslovakia - Social Income.*

Prices of animal products, for each year since 1929, show a considerable decline, owing to the fact that the position of farmers engaged in forage production became worse each year: their available income became steadily less and their capital did not yield interest (Graph I). This was especially the case with the farms in the East; in the West the share of the social income remaining in the farmers' hands increased in 1934-35, while the return on own capital

changed from negative to positive. This favourable situation was in part due to the rise in the price of butter in Bohemia from 14.73 crowns per kg. in 1933 to 15.20 in 1934.

The income passing to third parties, and especially the operator's income, on the cereal- and sugar-beet-growing farms in the West, declined from 1928-30 to 1934-35, but the return on own capital did not fall below zero.

On the cereal- and sugar-beet-growing farms in the East, the social income recovered in 1934-35. Cost of wage labour and interest charges on debts were higher than the year before, but this did not prevent the return on own capital from rising. The operator's income on sugar-beet farms even approached the level of 1928-30.

Apart from local variations, the social income is higher in the western than in the eastern parts of the country. The economic life in Czechoslovakia is governed by the geographical structure of the country. Over this elongated territory, farm accountancy results show a deterioration of vital energy as one passes from west to east (Graph I).

POLAND.

Poland is more an agricultural than an industrial country, 75 per cent. of the population depending on the land for a livelihood.

The two main products are rye and potatoes. Taking the average of 1924-1928, 5,000,000 hectares were under rye, the average yield being 9.9 quintals per hectare (falling to 7 on the northern borders and rising to 15 in the West).

The potato crop, of which one third is fed to stock, is of extraordinary importance. In good years the yield is more than 300,000,000 quintals, but bad seasons are disastrous even for the large landowner.

Although the density of livestock is not comparable with that of the countries specialised in stock farming, such as Switzerland or Denmark, it exceeds 50 head of cattle per 100 inhabitants in the North-East, in the Carpathian regions and even in the West. This proportion falls below 30 in the regions of large scale cereal cultivation and rises to 60 in other regions. Mixed forage crops are but little developed so far, scarcely 1,400,000 hectares being under clover, mangolds and seradella; the greater proportion of these crops are found in the West in connection with stock farming. The dairying industry revived after the war, especially in the central provinces, largely as a result of the formation of co-operative societies operating under a supervisory Union. The export of butter was organised at the same time.

In Poland, as in Germany, pig-breeding is highly developed, while on the other hand there is a tendency to abandon sheep farming.

Flax and hemp have always been grown; the cultivation of sugar-beet, hops and tobacco is much more recent. Only flax and sugar-beet are of real importance.

Some mention may be made of orchard cultivation, the yield of which represented from 2 to 3 per cent. of the total production in 1934-35.

Besides heavy industrial products, Poland exports cereals, sugar, dairy products, eggs and livestock. Fodders are exported from the Western provinces. These exports do not, however, balance purchases of raw materials (cotton, wool, jute, iron, fertilisers), of manufactured goods and even of foodstuffs, as home grown cereals no longer meet national requirements. It would seem that efforts should be made in Poland to improve agriculture with a view to reducing imports of agricultural products. In recent years there has been a reduction, in fact almost a complete cessation, of cereal imports and an increase in the export of cereals, butter, pigs and pig meat (1):

	1927-31	1932	1933	1934	1935	1936
Cereal imports, thousands of quintals	4,494.8	243.1	439.0	33.7	0.4	0.2
Cereal exports, thousands of quintals	3,738.0	4,646.5	6,006.2	9,398.0	10,209.8	10,764.1
Export of pigs, thousands of head	—	192.8	107.0	154.6	105.8	196.6
Exports of pigmeat, thousands of quintals	173.6	13.5	14.5	14.3	39.7	101.0
Exports of butter, thousands of quintals	738.0	1,228.0	1,609.0	4,437.0	5,686.0	10,907.0

Since 1929, the Government has imposed an import duty of 11 zloty per quintal on wheat, rye, barley and oats. The export premiums were raised in 1931; and the Government was able to effect a recovery in animal production. Anxiety has been felt, however, for the financial position of agriculture. Prices of agricultural products have fallen much more rapidly than those of manufactured commodities, and than labour costs and taxes.

In 1934-35 the fall in the gross return was again, as in 1930-33, more marked than the fall in the cost of production: the proportion in which it would have been necessary for the prices of farm products to rise so that the gross return might attain the level of the production costs was in the Southern provinces as great—and even greater in the Western provinces—than it was at the depth of the depression. From 1933 to 1935, the Government made every effort to reduce the prices of manufactured articles required in agriculture, to lower taxes and to relieve the burden of farm indebtedness. On the other hand it influenced the prices of agricultural products by instituting a system of bonuses out of customs receipts and setting up State Agricultural and Industrial Establishments to regulate the supply and demand for wheat and to fix wheat prices. The effects of this policy began to be felt in 1935-36.

(1) These figures are taken from the *International Yearbook of Agricultural Statistics* for 1937-1938. International Institute of Agriculture, Rome 1938.

TABLE I. — *Relation between Gross Return and Production Cost in Poland.*

	Production cost		Gross return		Profit or loss on total farm assets in % of gross return	
	zloty per ha.	index numbers	zloty per ha.	index numbers		
Farms in the South:						
1927-30	777.53	100 —	641.40	100 —	—	21.22
1930-33	595.82	76.63	367.41	57.28	—	62.17
1933-34	396.04	50.93	274.67	42.82	—	44.19
1934-35	393.88	50.66	243.26	37.93	—	61.92
Farm in the East:						
1927-30	321.22	100 —	294.36	100 —	—	9.11
1930-33	240.07	74.74	164.01	55.72	—	46.37
1933-34	199.22	62.02	153.27	52.07	—	29.98
1934-35	192.90	60.05	143.38	48.71	—	34.54
Farms in the Centre:						
1927-30	635.62	100 —	594.65	100 —	—	6.89
1930-33	437.61	68.85	301.31	50.67	—	45.24
1933-34	299.96	47.19	229.17	38.54	—	30.89
1934-35	303.59	47.76	220.25	37.04	—	37.84
Farms in the West:						
1927-30	717.89	100 —	661.50	100 —	—	8.52
1930-33	564.23	78.60	362.04	54.73	—	55.85
1933-34	420.62	58.59	283.84	42.91	—	48.19
1934-35	393.80	54.85	245.32	37.08	—	60.52

In that year, the proportion in which it would have been necessary to raise prices of agricultural products so that the farmer might carry on without loss was appreciably reduced:

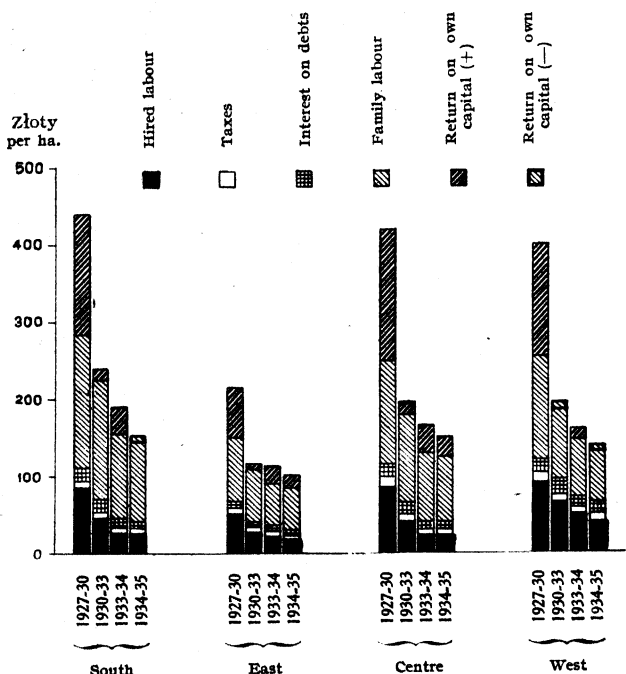
Regions	Profit or Loss on total farm assets in % of gross return in 1935-36
South	— 33 —
East	— 17.80
Centre	— 24.35
West	— 42.81

The situation of the farmers was worse in 1934-35 than two years before. The share of the social income remaining to them after paying their creditors was reduced by one half from 1927-30 to 1930-33; it continued to diminish, although more slowly, in the following years. The share of the other parties also diminished but not to the same extent. Some reduction was noticeable in the interest charges on debts and in taxes. The principal reduction, however, was in the cost of wage labour which fell by nearly two-thirds from

1927-30 to 1934-35. None of the European industrial countries could command labour so cheaply as Poland, where the cost was almost negligible in 1934-35.

In spite of these favourable conditions farming did not prosper; running expenses, as already noted, were always higher as compared with the gross return, and the operator's income became smaller each year.

GRAPH II. — *Poland - Social Income.*



The position may be examined in each of the four regions of Poland which show great variety of economic conditions.

The South produces more milk and cattle than the other Polish districts (42 per cent. of the gross return as compared with 25 per cent. in the other provinces). Although not so large as in the West, production of pig meat does not fall below the average. No region produces such large quantities of cereals and potatoes.

In Western Poland, the gross returns of all branches of agriculture are higher than those obtained by the farms in the other provinces. Here, however, as in the South, the intensity of cattle- and pig-breeding obliges the farmer to buy very large quantities of concentrated feeds, and in consequence the level

of the general expenses tends to rise too high: in 1934-35 the return on own capital fell below zero (Graph II).

In the East, crop yields in kind and livestock production are at a low level. Cereal yields in the Centre, although somewhat higher than those of the East, remain below those in Podolia and Posnania. Farmers in these two last regions do not purchase such large quantities of concentrated feeds as those in the South and West, and the return on own capital has never dropped below zero. (Graph II).

LATVIA.

Sixty-eight per cent. of the population are engaged in agriculture. The crops, including flax, are the same as in Lithuania (1). Agrarian reform has placed the small farmers in possession of the greater part of the former large landowners' estates, and they are gradually increasing the herds of slaughter and dairy cattle. The total cattle numbers have risen from 910,000 head in 1923 to 1,117,000 in 1931 and to 1,275,000 in 1935. Butter is exported through the co-operative dairies and, after inspection, to English and German markets. Intensification of milk production has been accompanied by increased pig breeding. There were 487,000 pigs in 1923; in twelve years the numbers have doubled and in 1935 Latvia was fattening 803,000 pigs. The rapid increase in butter exports shows no tendency to slacken.

Years	Export of butter in metric tons
1924.	3,667
1927.	10,761
1934.	15,701
1937.	19,211

Since 1929, legislative measures have been taken to supervise butter exports, and a special Butter Export Company (*Latvijas Centralais sviesta eksports*) was founded in 1935. Prices of butter intended for foreign markets have been fixed by the Government several times and the Treasury has paid out considerable sums for maintaining these prices.

Stable prices for bacon and cereals are guaranteed by special laws. Bacon is bought from the farmers by a Bacon Export Company and sold abroad. The Government buys breadstuff rye and wheat from the growers at prices fixed by the authorities.

There was a decided advance in cereal prices in 1932, in pigmeat prices in 1933, and in milk prices in the regions of Vidzeme and Kurzeme. In 1934, however, there was a general decline in prices of all agricultural prices, shown by the following figures.

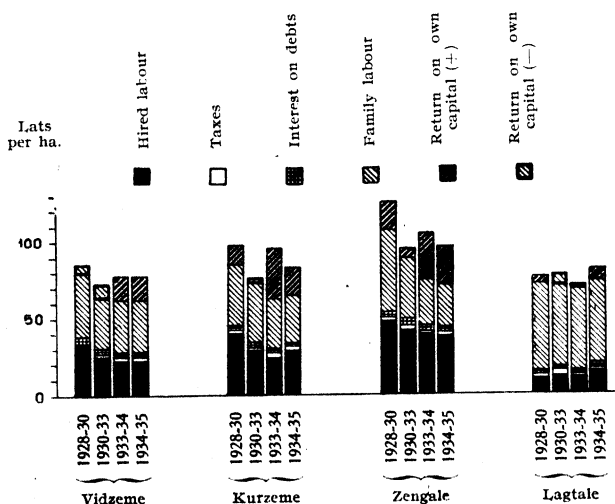
(1) See page 565.

Prices of the principal agricultural products of Latvia.

(in lats).

Region		Wheat per quintal	Rye per quintal	Pigmeat per quintal	Milk per quintal	Butter per kg.
Vidzeme ,	1931	27.27	22.33	—	14 —	2.02
	1932	25.85	21.78	58.86	10 —	1.55
	1933	25.39	20.01	73.58	9.35	1.60
	1934	19.90	15.49	65.59	9.39	1.56
Kurzeme	1931	22.76	19.49	—	13 —	1.98
	1932	24.69	20.94	60.75	10 —	1.55
	1933	25.43	19.55	73.56	9.18	1.57
	1934	18.97	14.44	66.74	9.37	1.56
Zemgale ,	1931	21.88	19.73	—	14 —	2.05
	1932	23.86	20.88	60.16	10 —	1.52
	1933	24.29	18.93	74.70	9.29	1.56
	1934	18.59	14.30	66.61	9.24	1.53
Latgale ,	1931	22.74	18.63	—	16 —	1.88
	1932	23.58	20.24	60.99	12 —	1.41
	1933	22.69	18.11	74.58	11.23	1.42
	1934	17.66	13.31	68.70	10.64	1.36

Prices of manufactured commodities, wages and interest charges on debts up to 1933 fortunately decreased to a greater extent than the price of agricultural products. In the regions of Kurzeme and Zemgale in 1933-34 the

GRAPH III. — *Latvia - Social Income.*

prices of these latter were such as to allow the farmer to get through the season without loss. Actually in 1933-34 the farmers of Kurzeme secured an average profit of 12 lats per hectare; in Zemgale the average profit was 10 lats; in 1934-35 only the Zemgale farmers still made a profit, and that a very small one, *viz.*, 2.90 lats per hectare. The gross return lost the advantage which had been with difficulty obtained: in the region of Kurzeme production costs showed a stronger rise than did gross return; while production costs rose somewhat in the region of Zemgale, the gross return declined:

TABLE II. — *Relation between Gross Return and Production Costs in Latvia.*

Region		Production costs		Gross return		Profit or loss on total farm assets in % of gross return
		lats per ha.	index numbers	lats per ha.	index numbers	
Vidzeme	1928-30	173.33	100 —	143.88	100.0	— 20.47
	1930-33	148.35	85.59	117.08	81.37	— 26.70
	1933-34	120.72	69.65	116.08	80.68	— 4 —
	1934-35	119.09	68.71	116.63	81.06	— 2.11
Kurzeme	1928-30	165.18	100 —	148.13	100 —	— 11.51
	1930-33	146.97	88.97	121.64	82.12	— 20.82
	1933-34	121.49	73.55	133.23	89.94	8.81
	1934-35	141.03	85.38	136.14	91.90	— 3.59
Zemgale	1928-30	217.07	100 —	205.67	100 —	— 5.54
	1930-33	183.08	84.34	160.99	78.28	— 13.72
	1933-34	139.01	64.04	148.85	72.37	6.61
	1934-35	142.98	65.87	145.86	70.92	1.97
Latgale	1928-30	127.63	100 —	112.93	100 —	— 13.02
	1930-33	135.85	106.44	108.61	96.17	— 25.08
	1933-34	116.74	91.47	100.63	89.11	— 16.01
	1934-35	122.14	95.70	113.84	100.80	— 7.29

The natural conditions of each of the regions under survey are clearly reflected in the figures shown on Table II. Zemgale, the eastern portion of Courland extending over the plain of Riga and Jalgava, sandy to the north but providing excellent grass land in the south, is more fertile than the uplands of Courland, known by the Letts as Kurzeme, and also more productive than the region of Vidzeme in the north of Latvia, characterised by two ranges of hilly land. Latgale, on the other hand, consists of marsh land and moors and yields only a poor return for the farmer's labour.

Hence the highest gross return and the highest social income are found in Zemgale. The return on own capital, as shown on Graph III, did not fall below zero in 1930-33 as in the other three regions. It rose in 1933-34 with the operator's income, and both declined again in 1934-35, owing to the rise in farming expenses. In the region of Kurzeme there were similar fluctuations

in the return on own capital and operator's income; here, as already noted, the gross return declined in 1934-35 while farming expenses increased.

In the region of Vidzeme, there was no change in the level of the social income, the operator's income and the return on own capital as between 1933-34 and 1934-35; the relation between gross return and production costs remained the same. Vidzeme is the only region in Latvia where the return on own capital was negative in 1928-30: harvests were very poor in 1928 and the farms, which felt the effects of poor crops more than those of other regions, were unable to provide interest on the farmer's own capital.

In Latgale the farmers' bad years began in 1930 and ended in 1933. In 1934-35 the social income was higher than in 1928-30 and the gross return was above the 1928-30 figure. The farmer's situation has never been so good.

LITHUANIA.

Even more than in Latvia or Estonia, agriculture is the leading industry in Lithuania where 80 per cent. of the population depend on the land for their livelihood. Pig-breeding is gaining in importance and pig exports have increased rapidly in recent years:

	1932	1933	1934	1935	1936	1937
Pig exports in thousand head	33.7	21.8	45.3	104.8	117.0	137.7

The principal crops are rye, oats, potatoes and flax.

State intervention in favour of agriculture takes the form of subsidies assigned to the Chamber of Agriculture, maintenance of prices of agricultural products and conversion of debts. The flax trade has been regulated and a price control commission formed but nevertheless the level of prices of agricultural products decreases too markedly in relation to prices of manufactured goods:

	Price index numbers for crop and livestock products	Price index numbers for manufactured commodities
1926-29	100	100
1930	81	89
1931	64	80
1932	46	70
1933	42	58
1934	40	55

The proportion in which it would have been necessary for prices of agricultural products to rise so as to place the gross return on a level with pro-

duction costs increased steadily up to 1933-34. In the following year it was rather less, but still almost double the 1928-30 proportion:

Years	Production cost		Gross return		Profit or loss on total farm assets as % of gross return
	litas per ha.	index numbers	litas per ha.	index numbers	
1928-30	380.96	100 —	309.79	100 —	— 22.97
1930-33	351.22	92.19	256.72	82.87	— 36.80
1933-34	231.66	60.81	161.75	52.21	— 43.22
1934-35	216.04	56.71	152.22	49.14	— 41.93

Among production costs, cost of wage labour seems to have decreased most noticeably; representing 44 per cent. of the social income in 1928-30, these costs fall to 8 per cent. in 1933-34 (Graph III).

Interest charges on debts were reduced by more than half in 1933-34. The fall in the level of the social income in Lithuania is mainly due to the shrinkage of the share taken by employees, creditors and the Treasury; since 1930-33, the return on own capital has shown little variation.

It was not till 1936-37 that the Government policy was crowned with success: the return on own capital amounted to 30 litas per ha., or nearly as high as in 1928-30 when it was 35 litas per ha. (Graph III).

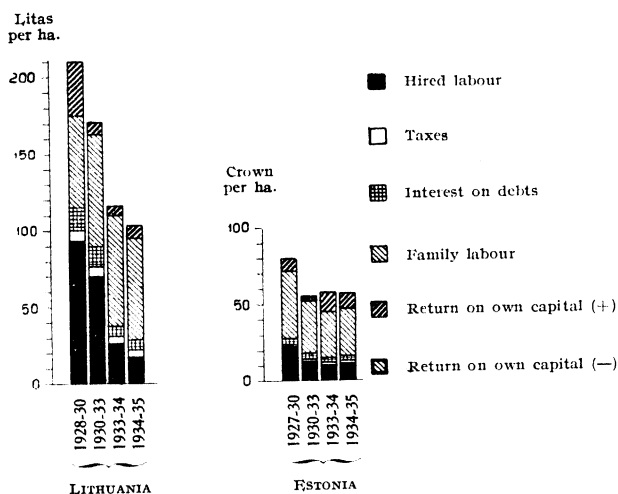
ESTONIA.

About 60 per cent. of the population are engaged in agriculture. Nearly one-fourth of the country is arable land, while two-fifths of the total area is under grazing. The main crops in the south are rye and potatoes; flax is also grown largely. Livestock numbers exceed 38 head per square kilometre, with an appreciable rise in the number of cattle and a tendency towards increase in dairying. Cattle numbers rose from 512,600 head in 1923 to 668,900 in 1931 and 731,100 in 1936. Butter exports increased in the last few years after a temporary decline in 1933.

Years	Butter exports in metric tons
1927-31	12,400
1932	12,531
1933	9,224
1934	10,118
1935	10,838
1936	10,955
1937	13,180

Steps have been taken by the Government to supply the national market with home-grown agricultural products and to import all farm requisites duty free or at a reduced rate. Cereal imports, which had entirely ceased in 1932 and in 1933, have been resumed but remain much below the 1927-31 figure.

GRAPH IV. — *Lithuania and Estonia - Social Income.*



Strict export control measures have been introduced, with a view to guaranteeing a firm market to agricultural products of approved quality and in particular to butter and eggs.

Except for beef, the decline in prices of agricultural products continued in 1934-35, no improvement being registered until 1935-36. The following statement shows the prices in crowns per quintal.

	1927-30	1930-33	1933-34	1934-35
Rye	18.0	(1) 15.2	(1) 13.0	(1) 11.0
Wheat	24.5	19.5	19.1	15.4
Brewing-barley	19.2	16.2	18.3	14.0
Oats	15.8	9.7	10.9	8.3
Potatoes	3.8	1.5	1.5	1.8
Butter for export	281.2	153.5	145.2	128.5
Beef	58.3	39.0	30.8	35.8
Pigmeat	103.5	60.8	61.7	42.8

(1) Prices paid by the Government.

Production costs which had fallen in 1933-34 to a greater extent than gross return, rose again in 1934-35, and the loss experienced by the farmer was larger in 1934-35 than in the previous year:

Years	Production costs		Gross return		Profit or loss on total farm assets	
	crowns par ha.	index numbers	crowns par ha.	index numbers	in crowns par ha. (loss)	in % of gross return
1927-30	135.01	100 —	119.23	100 —	15.78	13.24
1930-33	110.05	81.51	85.61	71.80	24.44	28.55
1933-34	87.37	64.71	82.68	69.34	4.69	5.67
1934-35	89.08	65.98	82.22	68.96	6.86	8.34

The return on own capital which had fallen below zero in 1930-33 rose in 1933-34 to a higher level than in 1927-30: wages and interest charges on debts on the one hand and farming expenses on the other were lower (Graph III). The return on own capital again declined in 1934-35 for the reasons given above, but still remained above the 1927-30 figure. The enquiry into the causes of the recovery of European agriculture will reveal that a further rise occurred in 1935-36 and in 1936-37.

J. DESLARZES.

LAND RECLAMATION AND IMPROVEMENT IN EUROPE

(concluded) (1).

ROMANIA.

The earliest works of any considerable extent in Romania were carried out by the owners of land liable to inundation, their main object being the reconditioning of the soil for agricultural purposes. It was not until December 1, 1910 that a law was passed on this subject, *viz.*, that for the "valorisation of land within the inundation area of the Danube". The first article of this law indicates its object; it enumerates the functions of the special service thereby established: this service will study, plan, effect and maintain all dyking works and all the works necessary for the drainage, improvement and valorisation of land in the Danube valley which is liable to inundation, whether owned by the State or by private persons, in cases where such works are necessary in the interest of the public.

(1) The preceding parts of this article appeared in the October and November issues of this *Bulletin*.

Among the objects of the improvement works the law includes the drainage or "rendering healthy" of the land, regarding flooded lands as a danger to health; this justifies the declaration of the reclamation works as of public utility.

The State intervenes in the carrying out of operations and assists private enterprise. The principal modes of intervention prescribed by law are the following: (a) the State may expropriate land when work prescribed by the law is considered necessary; (b) the majority may impose their will on the minority in regard to reclamation work; (c) the State is authorized to supply the capital necessary for such landowners as cannot raise the amount required.

The law above-mentioned was superseded by a more recent enactment dated July 10, 1929 and entitled: "Law for the general administration of State fisheries and the improvement of land in the valley of the Danube subject to inundation". The clauses relating to land reclamation modify the principles of the former law as follows: (a) it extends the measure to improvements of all kinds, including those connected with agriculture, pisciculture, forestry, etc.; (b) it leaves to landowners the initiative in the works, in regard both to the preparation of schemes and the raising of the necessary capital. The State reserves to itself only the right of reclaiming its own land through the medium of an independent administration, and that of approving or rejecting the plans submitted by landowners and of determining that the work is carried out in accordance with these plans and maintained in good condition.

SWEDEN.

In Sweden the agricultural census of 1927 supplied data regarding the extent of land which had been cleared during the six preceding years, that is to say, during the period 1922-1927. It appears that an area of 22,773 ha. was cleared, representing 0.6 per cent. of the total area of the country. Thus the average area annually cleared was some 3,800 ha. or 0.1 per cent. of the arable area. As compared with the period 1913-20, when the average area converted yearly into cultivable land was 8,444 ha., the area cleared during the years 1922-27 was only about half that of the earlier period.

In order to form some idea of the possibilities of Swedish agriculture it is necessary to realize the extent of the areas which have yet to be dealt with. In this respect, however, the statistics are inadequate and opinions are contradictory. It is thought by some that Sweden is almost entirely under cultivation, only a very limited area still requiring clearance.

Assuming that the possibilities of clearing are more or less the same throughout the north of Sweden, the total area at present cultivable should amount to 1,100,000 ha., according to an investigation carried out in 1921 in part of that region. Consequently, it should be possible to estimate a total of three times the present area of arable land in the provinces of Norrland and Dalarne. In the south and centre of Sweden the possibilities of clearing the land are considerably less, the area in that region suitable for clearing being estimated at 150,000 ha.

The total figure for all areas susceptible of clearing reaches approximately 1,250,000 ha. If the whole of this land should be cleared, the area of arable land would be increased from its present extent of 3,720,000 ha. to 4,970,000 ha., that is to say, it would be increased by about one-third.

With regard to drainage, it appears from the statistics available that about 911,000 ha. have been drained, that is to say, 24.5 per cent. or nearly one-fourth of the total area of arable land in Sweden (1). The area drained, however, varies not only between different regions of the country but also between the size-groups of the farms in the same district. There is less drainage on the smaller than on the more extensive farms. The proportion of drained areas throughout the country amounts to 49 per cent. for the large farms, but only 7 per cent. for the 1-2 ha. farms, while the percentage is still lower in the case of the smallest farms.

The cost of drainage and the possibility of effecting it depends mainly upon the material used for this purpose. In the final balance-sheet the various zones have been classified according to the material used and it appears that the land drained by means of pipes included an area of 5,977,700 ha.; stones were used for the drainage of 160,700 ha. and 152,600 ha. were drained in other ways.

Drainage by means of pipes was found principally in the plain of Skane and in the greater number of plains in the south and centre of Sweden, but it was very rare in Norrland where the drainage is not of great importance and is effected by means of stones or other material.

The State makes loans on terms of deferred payment, and also direct subsidies, the repayment of which is not compulsory, for the reclamation of marshy land, for drainage and, in general, for the improvement of the soil. It has also taken measures for effecting and maintaining various improvements. In this connection a body of agricultural engineers have been entrusted with the work of drawing up plans for lowering the level of lakes, and with other important works for land clearing and draining.

The State subsidizes undertakings for the improvement of land in the following cases: (a) for the drainage of land under cultivation by means of culverts; (b) for the reduction of transport charges for lime intended for agricultural purposes; (c) for clearing land on small holdings which are inadequate for the maintenance of a family without some increase in the area under cultivation; such subsidies are on a generous scale and repayment is not compulsory; (d) for the drainage of wooded land. Direct grants for encouraging the improvement of land, in connection with the formation of small holdings, are granted on a given scale. They are also granted for the removal of stones from land already under cultivation.

(1) ERNST HÖIJER: *Sverges jordbruk*. Stockholm, 1932. — OLOF JONASSON, ERNST HÖIJER, THURE BJÖRKMAN: *Agricultural Atlas of Sweden*. Compiled on behalf of the Royal Swedish Academy of Agriculture. Stockholm, 1938.

SWITZERLAND.

Legislation on land improvement in Switzerland is both federal and cantonal, and dates from June 27, 1884, when the first decree on this subject was enacted. By this decree the Federal Council was authorized to subsidize enterprises the purpose of which is to improve land or to facilitate its utilization. These subsidies were allocated on applications accompanied by schemes made by the cantons. They could not exceed 40 per cent. of the total cost of the proposed enterprise and were only granted in cases when the cantons, communes or corporations concerned provided an equal amount. The cantonal authorities were responsible for the upkeep of the works carried out.

The Federal Government grants subsidies of varying amounts according to the importance of the works and the practical results expected from them. Speaking generally, the cantons are given a free hand. They apportion and organize the different phases of the operations, granting also to the parties concerned (private persons, syndicates, corporations or communes) subsidies of varying amounts. The greater number of cantons legislate independently of the Federal Council on the subject of land improvement. Special services have been established by the Federal Government and the majority of the cantons, directed by rural engineers; these are responsible for everything relating to the initiation, management and superintendence of the enterprises.

The decree of 1884 was superseded by the Federal law of December 22, 1893 (improvement of agriculture by the Government) amended on October 5, 1929. No change was made in the general trend of the original legislation on this subject; the principle of limiting the subvention to 40 per cent. was maintained but provision was made that exceptionally and when required, the Federal Council might grant a subsidy up to 50 per cent. of the total cost of the work to syndicates and corporations on behalf of undertakings to which the cantons or communes do not contribute, or contribute less, on condition that the works were satisfactorily carried out.

The Federal Government may grant subsidies for the following undertakings: (1) reclamation; (2) canalization and regulation of the course of streams; (3) irrigation; (4) re-parcelling of the land; (5) roads and bridges; (6) transport by rope lines and funiculars; (7) the bringing of water to mountain pasture lands or to isolated farms in the mountains; (8) land settlement in remote country districts (including the supply of water, light and electric power); (9) byres in mountainous districts; (10) chalets and premises for the manufacture of goods; (11) clearing: (a) cleaning and removal of brushwood, etc. (construction of terraces); (b) raising the level of land; (c) levelling; (12) fencing on mountain pasture land; (13) installations for the utilization of manure on mountain pasture lands: (a) manure pits; (b) installations for distribution of liquid manure; (14) electric light and power conductors in mountainous regions.

Land improvement legislation was rendered easier by the insertion in the civil code, in force since 1 January 1912, of certain restrictive measures as regards ownership whereby excessive division of land was prohibited. It is also enacted

that whereas only the community of the landowners interested can carry out the improvement, those in the minority must comply with the wishes of the majority.

Thus Switzerland is now evolving a definite policy in respect of land improvement; the laws which have been passed and the very wide interpretation that has been placed on some of them make it possible to adapt Government intervention and grants to the very variable conditions of the different regions.

As an example of this adaptation to regional conditions statistics are given below of the drainage of the plain of the Rhône, in the canton of Valais. (1):

Drainage of the Rhône plain in the Canton of Valais.

Viège Rarogne Canal, on land belonging to the communes of Viège, Rarogne, Niedergestein, Eyholz and Baltschnieder (1918-36):

Federal subsidy:

principal canal	50 %
secondary canals	40 »
Cantonal subsidy	20 »

Lands to be drained:

marshy	640 ha.
damp	80 »

Total . . .	<u>720 ha.</u>
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Total cost of drainage 2,913,737.05 fr.

Cost per ha. 4,046.85 »

Rhône plain at Tourtemagne, on land belonging to the communes of Tourtemagne, Agarn and Loèche (1930-39):

(a) above the river Tourtemagne

Federal subsidy	30 %
Cantonal subsidy	20 »

Lands to be drained:

marshy	70 ha.
damp	80 »

Total . . .	<u>150 ha.</u>
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(1) Forwarded by the Department of Public Works on July 7, 1938.

(b) below the river Tourtemagne

Federal subsidy	20 %
Cantonal subsidy	25 "
Lands to be drained:	
marshy	120 ha.
damp	74 "
	<hr/>
Total	194 ha.
	<hr/> <hr/>

Cost and area above the Tourtemagne . .	70,000 — fr. for 150 ha.
Cost and area below the Tourtemagne . .	161,749.75 " " 194 "
	<hr/>
	231,749.75 fr. for 344 ha.
	<hr/> <hr/>

Cost per ha. 673.69

Rhône plain in the region of Uvrier and Bramois near Sion (1933-38):

Federal subsidy	40 %
Cantonal subsidy	20 "
Area to be drained	240 ha.
Total cost	650,000 fr.
Cost per ha.	2,708 "

Sion Riddes plain, on land belonging to the communes of Sion, Conthey, Vétroz, Ardon and Chamoson (1920-38):

Federal subsidy:	
principal canal	50 %
secondary canals	40 "
Cantonal subsidy	20 "
Area to be drained	1,200 ha.
Total cost of drainage	2,360,000 — fr.
Cost per ha.	1,966.65 fr.

Rhône plain to Riddes-Martigny, on land belonging to the communes of Riddes, Saxon, Charrat, Fully, Martigny-bourg, Martigny-ville and the Bâtiaz (1918-34):

Federal subsidy:

principal canal	50 %
secondary canals	45 »
Cantonal subsidy	20 »
Area to be drained	1,200 ha.
Total cost of drainage	5,309,350.93 fr.
Cost per ha.	4,424.25 »

Leytron-Fully plain, on land belonging to the communes of Leytron, Saillon and Fully (1910-24):

Federal subsidy	$\left\{ \begin{array}{l} 50 \% \\ 45 \\ 40 \end{array} \right.$
Cantonal subsidy	20 »
Area to be drained	708 ha.
Total cost of drainage	2,026,747.47 fr.
Cost per ha.	2,862.63 »

Rhône plain between Monthey and Le Lac, on land belonging to the communes of Monthey, Collombey, Vionnaz, Vouvry and Port-Valais (1931-41):

Federal subsidy:

principal canal	45 %
secondary canals	40 »
Cantonal subsidy	20 »
Area to be drained	2,230 ha.
Total cost of drainage	1,500,000 fr.
Cost per ha.	672.64 »

*Summary of the drainage works carried out in the
Rhône plain in Valais.*

Years	Areas concerned	Total area	Total cost	Cost per ha.
		ha.	francs	francs
1918-36	Plain of Viège-Rarogne	720	2,913,737.05	4,046.85
1930-39	" " Tourtemagne	344	231,749.75	673.69
1933-38	" " Uvrier-Bramois	240	650,000 —	2,708 —
1920-38	" " Sion-Riddes	1,200	2,360,000 —	1,966.65
1918-34	" " Riddes-Martigny	1,200	5,309,350.93	4,424.45
1910-24	" " Leytron-Fully	708	2,026,747.47	2,862.63
1931-41	" " Monthey-Le Lac	2,230	1,500,000 —	672.64
Total . . .		6,642	14,991,585.20	2,257.08

CZECHOSLOVAKIA.

Land improvement in Czechoslovakia, more especially land drainage, are important not only from the economic point of view, as preventing damage by floods and increasing the fertility of the soil, but also from the hygienic and social aspects.

The history of land improvement in this country may be divided into three periods: pre-war years; the period between 1919 and 1930; from 1931 when land improvement received a new impetus from the law of 27 March 1931, regarding allocation of the State Fund for this purpose.

This Fund is administered by two departments concerned with separate branches of land improvement. The function of the first is the execution and promotion of: (1) the correction of water courses, including streams either un-navigable or not used for navigation; (2) the regulation of torrent waters and protective measures against land sinking; (3) the construction of dykes in the valleys of all water-courses; (4) the construction of reservoirs for protection against damage caused by water; (5) the reconstruction or repair of barrages or sluices in water courses, regulation of which may be also carried out or encouraged by the Fund, if such regulation is of importance for repairing flood damage, or for the satisfactory condition of the beds of streams, or if it tends to improve the run-off.

The function of the second department is to promote or encourage: (1) improvements of any kind; (2) the water supply for communes, including system of conduits and the disposal of waste water from communes; (3) the construction of reservoirs for collecting water for purposes of irrigation and the supply of the communes.

The cost of hydraulic works is met by subsidies from the different provinces, included in their annual budgets, supplemented by the State fund for hydraulic improvements established by the above-mentioned law. In cases which involve

important hygienic interests (laying on of water) subsidies may also be granted by the Ministry of Public Health.

Subsidies from the State Fund can only be granted when the province has undertaken to provide that proportion of the total expenditure which is required by the law.

The most generous subsidies are granted for the regulation of large water courses involving a considerable amount of stonework, for cutting intake canals, for the correction of torrent waters and for the construction or enlargement of reservoirs for protection against floods. In such cases, the amount granted may represent 70 per cent. of the total expenditure, provided that the province undertakes a grant of at least 25 per cent. The remainder of the expenditure is at the charge of the parties concerned.

65 per cent. of the expenditure may be granted by the State for the following purposes: the construction of smaller reservoirs for protection against damage caused by water; the construction of dykes in valleys for the protection of property against inundation; the protection of lands with loose soil. In each case the subsidy is only granted on condition that the province undertakes to provide at least 25 per cent. of the cost.

60 per cent. of the expenditure may be granted by the State for work connected with less important reservoirs intended for the collection of water for irrigation purposes, for the supply of communes or for other agricultural requirements; also on condition that the province undertakes to be responsible for at least 25 per cent.

A subsidy of 45 per cent. may be granted for the reconstruction or repair of locks or sluices, on condition that the province undertakes to provide at least 15 per cent.

Subsidies of 30 per cent. may be granted in respect of drainage, irrigation, utilization of sewerage, the clearing of land laid waste by mining operations, the general reconditioning of unfertile land, more especially on the physical side. When the financial position of the parties concerned is unfavourable a proportion of 35 per cent. may be granted. With regard to the construction of main intake canals on land that has been drained, and of main irrigation canals, the subsidy from the State fund may reach 40 per cent. of the approved expenditure, if the province undertakes to provide at least 15 per cent. of the expenses incurred in connection with works of the first category and 20 per cent. of the expenses incurred in connection with works of the second.

When the estimate of works and improvements exceeds 1,250,000 Kč., the State may undertake to pay part of the interest on a loan instead of granting a direct subsidy. Such share of the interest is equal, in this case, to the agreed proportion of the direct subsidy. The sum is paid to the respective credit institutions twice a year for periods varying from 25 to 30 years. The contractor must be responsible for at least $2\frac{1}{2}$ per cent., apart from the amortization.

In regard to works undertaken for the purpose of supplying the communes with water and for their drainage, the State subsidy may amount to 35 per

cent. for the establishment of collective water supply schemes supplying at least three communes; 40 per cent. of the approved expenses is allowed on condition that the province undertakes to provide at least 10 per cent.

These subsidies may be granted to districts, communes, water syndicates, or other associations of a similar nature. Only under very exceptional circumstances may a subsidy be granted to private persons; when, for example, an unsuccessful attempt has been made to form a syndicate or similar association, or when the nature of the work does not admit of such a proceeding.

Moreover, for the purpose of subsidizing the less important works of various kinds, the Minister of Agriculture has formed a "General Endowment Fund for Hydraulic Improvements".

Subsidies may be granted from this fund for the following objects: (a) land improvements for which the estimated expenditure does not exceed 100,000 kc.; this subsidy may amount to 40-60 per cent. of the total cost; (b) the sectional correction of small water courses with catchment basins not exceeding 30 m², the estimate being not more than 100,000 kc.; in this case the subsidy varies from 50 to 70 per cent. for lowland and may be as much as 80 per cent. for mountain water courses; (c) works for the local protection of river banks, including torrents, the estimated expense of which does not exceed 60,000 kc.; such a subsidy may be from 50-75 per cent.; (d) the construction of dykes as a protection against inundation, in so far as this work is not included in the provisions for the systematic dyking of water courses, and when the land to be protected does not exceed 100 ha.; also for the repair of dykes at an estimated expenditure of not more than 60,000 kc.; this subsidy will amount to 50-75 per cent.; (e) the formation of ponds for agricultural purposes at a maximum cost of 60,000 kc.; the subsidy being equal to 40-60 per cent.

Years	Regularisation of rivers		Correction of torrents		Land improvement	
	Length km	Cost kc	Length km	Cost kc	Area ha.	Cost kc
1919-30	1,341	411,324,721	282	110,849,979	202,841	756,814,190
1931-35	1,076	405,486,978	244	64,749,630	121,809	326,761,010

Years	Installation of aqueducts		Drying by canals	
	Length km	Cost kc	Length km	Cost kc
1919-30	2,905	471,988,570	—	—
1931-35	1,876	316,314,334	189	41,665,711

Subsidies from this fund are available for the institutions entitled to apply for State subsidies and, exceptionally, for private persons (1).

The total amount spent on hydraulic works during the period 1931-35 amounted approximately to 1,215 million Czechoslovakian crowns, as compared with 1,751 million during the period 1919-30. The difference is due to the economic crisis. A summary of the various classes of works carried out is given on the preceding page (2).

The law providing for the new State Fund has made it possible to undertake systematic works of hydraulic improvement on a programme corresponding to the utility of the different enterprises for the national economy. This is especially the case in regard to Slovakia and Subcarpathian Russia (Ruthenia). The programme has been drawn up for ten years, on the basis of small and large properties. The cost of the proposed operations amounts to approximately 3.5 milliards of Czechoslovakian crowns.

G. COSTANZO.

RESOLUTION ADOPTED BY THE INTERNATIONAL CONFEDERATION OF AGRICULTURE AT ITS GENERAL ASSEMBLY IN PRAGUE

The International Confederation of Agriculture,

(1) Whereas the first condition to be fulfilled in order that world economic equilibrium may be restored is to ensure peace between nations and to remove the danger of war,

(2) Whereas a system of free trade for commodities can only be established on the basis of the free circulation of persons, on an unfettered system of payments and on monetary security, and whereas these conditions are at present lacking.

(3) Whereas, in present circumstances, production, trade and the monetary system are continually being upset by excessive competition, economic recovery being thus impeded and the depression rendered more acute,

(4) Whereas unrestricted competition in the supply of agricultural produce threatens the existence of agriculture in industrial countries without serving the interests of agricultural countries,

(1) V. LESTINA: Encouragement aux améliorations hydrauliques en Tchécoslovaquie. *Est Européen Agricole*, No. 10. Paris, July 1934.

(2) Dr. Ing. JAN HORÁK: Le développement actuel et le programme des améliorations foncières dans la République Tchécoslovaque. Ministère de l'Agriculture. Prague, 1931. — Ing. URWALEK: Die Entwicklung wasserwirtschaftlicher Meliorationen in den Jahren 1931-1935 und der Bauplan für das Jahr 1936. *Wasserwirtschaftliche Mitteilungen*, No. 5-6. Prague, May-June 1936.

(5) Whereas, in view of the part played by the peasantry in the social organisation of nations, and having regard to the fact that agricultural production is closely dependent on natural conditions which are as diverse as they are variable, the judgment to be passed on, and the treatment to be assigned to, agriculture must not be considered from the same point of view as that adopted in the case of industry.

(6) Whereas a recovery in prices for agricultural produce would not merely benefit agriculture, but has, by raising the purchasing power of the peasant population, proved to be the most effective means of combating economic depression and unemployment in industrial countries as well, and whereas profitable prices also facilitate the adjustment of agricultural production to the needs of the new science of nutrition.

recommends the adoption of the following principles in framing world economic policies:

(1) World trade, the circulation of persons and the system of payments should be facilitated so far as possible without prejudice to the major interests of national economic systems. In present circumstances, however, it would not be possible to return to the liberal pre-war economic system.

(2) Measures designed to facilitate world trade seem particularly called for in the case of commodities the production of which can be increased at will in the protected country and imports of which are therefore very likely to be hindered by protection.

(3) In various branches, and more especially in agriculture, the problem will have to be solved primarily by organising agricultural producers and sale of their produce on the world market on an international basis; this may be achieved more especially by plurilateral and bilateral agreements between producers, with State sanction, improving and developing what has already been done in this respect, for instance in the case of sugar, wheat, timber, rubber and tea. The need for such organisation is particularly pressing in the oils and fats trade, since excessive competition in this trade is highly prejudicial to the butter market and hence to the price of milk and to the existence of a large proportion of the peasant population.

(4) Furthermore, international trade relations, and especially customs duties, quotas, sanitary measures and measures of veterinary police had better be regulated by bilateral and regional commercial treaties than by universal agreements the introduction and the application of which are at present beset with insurmountable difficulties.

(5) On the other hand, international agreements of a universal character may be contemplated in the case of monetary arrangements, payments and supplies of certain raw materials.

(6) A rational quota policy which allows for the needs of both importing and exporting countries is particularly well calculated to reconcile conflicting interests and to facilitate trade without injuring the production of the importing countries.

(7) Recognition should be given to the right of each State to develop its peasant population and to provide that population with an outlet for its produce within the country at reasonable and profitable prices.

(8) If all the conditions mentioned above are observed, the exchange of commodities provides a means of adapting home production to natural conditions and of increasing the utility of agricultural work in all countries.

The International Confederation of Agriculture invites Governments and responsible authorities to take the principles mentioned above into account when framing their economic policies.

INTERNATIONAL CHRONICLE OF AGRICULTURE**BULGARIA**

The economic situation in Bulgaria, which had been severely affected by the crisis of 1929, began to improve only in 1936, that is to say, a year later than did that in other countries. Foreign trade benefited from the good prices for agricultural products and the improvement in foreign markets. The price rise affected only export products and there did not appear to be any risk of speculation. The favourable economic situation which began in 1936 was continued in 1937. Foreign trade showed a great advance both in volume and value.

Bulgarian Imports and Exports.

Year	Imports				Exports				Balance
	Thousands of metric tons	Indices	Millions of levas	Indices	Thousands of metric tons	Indices	Millions of levas	Indices	Millions of levas
Average 1929-1933.	322	100	4,649	100	528	100	4,950	100	+ 301
1934	246	76	2,205	48	396	70	2,505	51	+ 300
1935	276	86	3,000	65	327	62	3,253	66	+ 244
1936	283	88	3,181	68	569	108	3,910	79	+ 729
1937	325	101	4,926	106	687	130	5,019	101	+ 93

The increase in exports is to be attributed principally to cereals and tobacco. The following table shows the trend of the exports of the various products:

Exports of the principal agricultural products of Bulgaria.

Products	1934	1935	1936	1937	1934	1935	1936	1937	Percentage of the total of exports			
	1934	1935	1936	1937	1934	1935	1936	1937	1934	1935	1936	1937
	Thousands of metric tons				Millions of levas				%			
Wheat	34.1	735.2	124.4	193.5	51.8	61.4	331.3	654.0	2.1	1.9	8.5	13.1
Maize	125.4	5.2	104.0	98.7	181.8	8.0	153.0	174.0	7.3	0.2	3.9	3.5
Dried beans	16.3	19.2	24.5	22.0	44.7	63.1	94.0	121.0	1.8	1.9	2.4	2.4
Tobacco	20.8	24.3	20.0	22.0	982.0	1,384	1,268	1,610	39.2	42.6	32.4	32.1
Eggs	14.5	12.8	17.5	17.5	341.0	401.0	465.0	430.0	13.6	12.3	11.9	8.6
Grapes	19.3	34.0	23.2	36.0	139.8	248.5	190.9	238.0	5.6	7.6	4.9	4.7
Dead poultry	2.9	3.7	4.4	2.2	86.3	113.5	146.0	168.8	3.4	3.5	3.7	3.4
Sunflower seeds	11.8	47.2	45.7	42.5	30.7	117.5	129.1	139.0	1.2	3.6	3.3	2.8
Oil-cake	28.6	28.0	48.7	44.9	50.9	47.1	90.0	97.3	2.0	1.4	2.3	1.9

The increase in the value of exports in 1937 was due rather to the price rise than to the increased volume of exports. The average prices of wheat and maize rose by 26 and 24 per cent. respectively, the prices of dried beans by 16 per cent. Although the prices of grapes fell, exports increased. Some new commodities entered the Bulgarian export trade, *e. g.*, pigs, tomatoes and tomato pulp, and strawberries.

The economic situation of Bulgaria was hardly affected by the slight financial and economic crisis which began in the autumn of 1937 and continued during the first half of 1938. This fact is evident in comparison of the foreign trade of Bulgaria during the first six months of 1938 with that of the corresponding period of 1937.

Bulgarian imports and exports in the first six months of 1937 and 1938.

First six months	Imports		Exports		Balance
	Thousand of metric tons	Millions of leva's	Thousand of metric tons	Millions of leva's	Millions of leva's
1937	155	2,255	312	2,387	+ 133
1938	165	2,260	285	2,583	+ 322

The export surplus rose from 133 million leva's in the first six months of 1937 to 323 million in the first six months of 1938. This balance is mainly due to the continually favourable prices of cereals and of tobacco. Tobacco exports reached 1,261,000,000 leva's as compared with 983,000,000 in 1937; it thus occupies the first place in Bulgarian exports. Wheat comes next with 346,000,000 leva's in 1938 as compared with 233,000,000 in 1937, an increase of 113,000,000. Maize exports rose from 135,000,000 to 143,000,000 leva's. Strawberries and tomatoes are becoming increasingly important among Bulgarian exports, and this allows the improvement of trade relations with a number of countries. On the other hand exports of dried beans, lambskins and sunflower seeds have dropped heavily.

The export of grapes which began in the second half of the year has up to the present appreciably increased. Fruit exports have risen similarly and it may be anticipated that the final result will be in accordance with the estimates.

From the above figures it will seen that the course of Bulgarian foreign trade continues to be favourable and that cereals are, owing to the price rise and the increase in demand, recovering the position they formally occupied.

During the two seasons 1936-37 and 1937-38, a policy of improvement of agricultural production has been continued in Bulgaria, with the following objectives in view: the supply of foodstuffs for the population; increase of fodder production so as to meet the needs of suitable feed for the various types of livestock; to meet in full or as nearly as possible the raw material requirements of the national industry; increased production of such of the better priced products as can find the best assured market in Bulgaria and abroad; the reduction of the costs of production of agricultural products by means of organisation of agricultural economy and of technical progress; finally, maintenance of the prices of certain agricultural products with a view to increasing the income of Bulgarian farmers.

I. — MEASURES AFFECTING MARKETS AND PRICES

Regulation of foreign trade.

Control of foreign trade by the National Bank continues. Since 1935, it has been somewhat relaxed, as the list of articles which may be imported has been lengthened and imports have increased in number and quantity.

By the Imports and Exports Order of June 4, 1937, all imported commodities are entered on a single list on the sole condition that importation and subsequent payment shall be effected only after the consent of the National Bank of Bulgaria has been obtained. Further the same Order reduced the percentage of the foreign currency which the exporter has to hand over to the National Bank, to the following proportions; for colza from 40 to 30 per cent., for hides and skins, from 30 to 20 per cent. and for potatoes from 20 per cent. to zero.

During the period 1936-37, in consequence of the devaluation of the French franc, the Swiss franc, the florin, the Czech crown, etc., the National Bank of Bulgaria was obliged to give assistance to the importers and exporters who had suffered losses from the devaluation of these currencies, compensating them for up to 65 per cent. of the losses.

Control of exports.

Control of exports of agricultural products was imposed by the law of 1932 on "control of exports of fruits, vegetables and table grapes" and by the 1933 Order on control of eggs. Later, in 1935, the law and the order were annulled and replaced by a new law on export control, further supplemented in 1936. By this law State control was put on a regular footing for organising and directing the export of agricultural products fixing standards of quality, regulating sorting and packing, etc. This law also lays down the conditions with which exporters are to comply and establishes supervision of their operations by the export companies.

A number of regulations for the application of this law are in force for the various products or groups of similar products: *viz.*, "regulations on the organization and control of the export of grapes, other fruits, fresh and preserved vegetables", "regulations on the organization and control of egg exports", "regulations on the organization and control of the export of tallow and pig fat"; other regulations exist for poultry (live or dead), for livestock, for frozen meat and for dairy products.

Trade treaties and agreements.

All trade treaties and agreements actually in force were concluded after 1925. In 1930 temporary understandings were reached on the basis of the most favoured nation clause with: Palestine, France, Czechoslovakia, Italy, Great Britain and the Colonies, Belgium, Albania, Japan, Latvia, Greece and Romania; the first trade treaty was made with Turkey.

After 1930 a trade and shipping treaty was concluded with Germany (1932), with Czechoslovakia, Yugoslavia and Italy (1934); all these treaties were also based on the most favoured nation clause. Trade agreements were also made with Hungary (1934) and the United States of America; a trade treaty was signed with Finland (1939).

Besides all these trade agreements and treaties, special quotas are assigned to Bulgaria for the import of prunes and livestock into Germany, France, Italy, Czechoslovakia, Switzerland, Turkey, etc.

To facilitate payments, clearing agreements have been made with Germany (1932), Belgium (1936), Italy (1938), Spain (1934), Poland (1937), Romania (1937), Turkey (1934), Hungary (1934), the Netherlands (1935), Czechoslovakia (1937), Switzerland (1937), Yugoslavia (1935) and Greece (1938).

Price stabilization at satisfactory levels.

The following measures have been taken to assist the marketing of certain agricultural products and to stabilize prices at a satisfactory level, and in some cases to encourage of production:

The wheat and rye monopoly, in the hands of the *Cereals Purchase and Export Administration*, remains in force. The surpluses of these two cereals for the year 1935-36 were bought by this Office at the price of 3 leva per kg. for soft wheat, 3.20 leva for hard wheat 2.25 leva for rye.

For the following year prices were raised for soft wheat to 3.20 leva per kg., for hard wheat to 3.50 and for rye to 2.45 leva. If the sale is effected at higher prices, the profit is shared prorate among the growers; if there are losses the State undertakes to indemnify them.

For the 1938 harvest prices were fixed at 3.40 leva per kg. of soft wheat, 3.70 leva for hard wheat and 2.75 leva for rye.

Under the law of March 27, 1937, the *Cereals Purchase and Export Administration* was entrusted with the purchase and export of 5,000 tons of rice at the price of 8.50 leva per kg. delivered free on rail. Any losses on this transaction will be covered by a levy of 0.25 leva collected on the quantities of rice in store, and of 0.70 leva on quantities to be husked later.

So as to protect the interests of *tobacco* growers, the *Agricultural and Co-operative Bank of Bulgaria* was required to purchase 4,000 tons of tobacco, which remained unsold from the 1936 crop; this tobacco will eventually be exported. Any profits from this transaction will be paid into a special account of the Bank; if on the other hand there are losses, they will be covered from the resources of this account, and if these latter are not sufficient, the State will make up the deficiency.

In 1938 the *Agricultural and Co-operative Bank of Bulgaria* was required to purchase another 4,000 tons of tobacco of the 1937 crop on the same conditions as the previous year.

By the law of August 10, 1936, *hemp and flax trade* is once more unrestricted. The *Cereals Purchase and Export Administration* is, however, required to purchase all the hemp and flax offered by growers, at the prices and on the terms stipulated in the special Orders. The import of hemp and flax as well as of substitutes is allowed in certain cases indicated in the law after authorisation by the Minister of Trade.

Prices fixed for hemp fibre were for 1936 and 1937: first quality, 19 leva per kg., second quality, 16 leva; third quality, 14 leva; for hemp waste: first quality 10 leva per kg.; second quality, 8 leva. For flax fibre: first quality, 42 leva; second quality, 36 leva; for flax waste, 10 leva per kg.

By the law of July 18, 1936 the *Cereals Purchase and Export Administration* was required to purchase *sunflower seed* of the 1936 crop at the price of 3 leva per kg. To cover any losses on this transaction, special levies on exported cake and seeds were

imposed and appropriated by the Administration. Later, in 1937, following an appreciable improvement in the prices of sunflower seed, the law of 1936 was annulled, and trade in this product was freed from restrictions.

The trade in cotton is a State monopoly, by an arrangement dating from 1934. The Cereals Purchase and Export Administration is also in the case of cotton required to purchase at fixed prices all the cotton grown in Bulgaria. In 1936, these prices fluctuated from 34.32 to 30 levas per kg. of raw cotton, according to origin. In 1937, prices for cotton from the best producing districts were: improved variety, 36 leva per kg.; good quality, 34 leva and low quality 25 leva; for cotton from other localities, 32, 30 and 25 leva per kg. respectively. In 1938 prices were the same as in 1937, with the exception of cotton from the Northern districts where prices were increased by 2 leva per kg. for improved and for good quality cottons.

The system of cotton marketing has led to an increase in production.

The whole 1936 crop of *cocoons* was bought by the Agricultural and Co-operative Bank of Bulgaria at prices varying from 21 to 48 leva per kg. of fresh cocoons, according to type and quality. Cocoons of the 1937 crop were bought at prices varying from 36 to 60 leva per kg. The same prices have been maintained in 1938. In fact prices have been a little higher owing to the better quality of the production.

II. — MEASURES AFFECTING AGRICULTURAL ECONOMY IN GENERAL

Use of selected seeds.

In order to generalize the use of new varieties of wheat, obtained on the experiment stations, the Cereals Purchase and Export Administration was required by a special law of November 10, 1936 to purchase selected seeds and to distribute them to growers in exchange for ordinary seeds, or by sale.

This law was applied in the autumn of 1937. Crops obtained with selected seeds were bought at the fixed price by the Administration plus a premium of 0.40 to 0.50 leva per kg.

For 1938 the premiums were raised to from 0.40 to 0.70 leva per kg. according to the variety and quality of the product.

Distribution of seeds, fodder, and foodstuffs to farmers hit by agricultural disasters.

Under a special law in force since 1935, growers who have suffered from agricultural disasters receive the seed required for sowing on condition that they restore an equivalent amount after the harvest of the following year.

Improvement of wine-making and encouragement of export of wines.

Provision has been made by a special law that part of the proceeds of the consumption tax on wine is to be placed at the disposal of the Ministry of Agriculture for the improvement of the wine-making industry and for encouragement of exports.

Special regulations have also placed the manufacture of vine-growing requisites under State control for the improvement of quality. These regulations also establish conditions for the operation of vine nurseries.

Control of farming material, implements and machines.

A new regulation was issued in 1937 extending control over insecticides and fungicides. All such products and their preparation are placed under compulsory inspection; for implements and machines the control is still optional.

Compulsory cleaning of wheat seeds before sowing; treatment of smut in wheat.

To prevent growers' losses due to the use of poor quality or smut infested seeds the cleaning of wheat seeds and their treatment against smut were made compulsory by a special law of October 14, 1937. This law will be applied by the communes within the next three years (1938, 1939 and 1940) by stages throughout the villages. The communes are required to instal all the necessary machinery and also to obtain the material for the treatment of the seeds. A small charge of about 5 leva per 100 kg. will be made to growers.

Control of breeding farms under State recognition.

This control was established nearly 10 years ago by means of a special regulation. In 1937 this regulation was revised, the following conditions for admission of cows and ewes to control being modified: minimum milk production per head, wool production, average weight of ewes, average weight of lambs. The amendments relate also the conditions with which pig- and poultry-breeding farms must comply, and to encouragement awards.

Breeding of young stallions by farmers.

Certain measures of encouragement to the breeding of young stallions are prescribed by a regulation of October 21, 1937, the object being to obtain good stallions for communes and for breeders' associations. Conditions are laid down for the rearing of the colts, the age at which they can be used for breeding and the conditions that must be observed by breeders. For each colt suitable to become a stallion, the State pays 4,000 levas to the breeders. In addition, communes unable for want of funds to obtain good stallions are subsidized by the State up to 50 per cent. of the purchase price of the animal.

Other measures for improvement of livestock.

The State has also taken measures for the breeding of young bulls to meet the needs of the communes; it also organises stock shows and fairs, makes grants to communes for the purchase of bulls and for the construction of communal stables, organises tests of breeding aptitudes for all kinds of livestock (cows, ewes and sows) in the herds or flocks chosen for obtaining animals of approved breed, subsidizes the construction of fowl houses, the supply of incubators (for improved breeds) to the communes, demonstrations of scientific feeding, etc.

Chambers of Agriculture.

With the object of enabling farmers to take part in the study of agricultural problems and of economic measures directed to the improvement of Bulgarian agriculture, the Government has set up seven Chambers of Agriculture (Law of May 14, 1937).

These Chambers are advisory bodies to the Ministry of Agriculture and Public Lands. Each Chamber consists of 30 elected members,—8 elected by the representatives of communes, 8 by the agricultural co-operative societies, 14 by the representatives of vocational associations of farmers—and three members appointed by the Ministry of Agriculture and Public Lands chosen from among growers or persons with a competent knowledge of rural economy.

The income of the Chambers of Agriculture is derived from: a tax of 20 leva per hectare of arable land or forests (State property being exempt), 5 per cent, of the proceeds of the land tax, and a subsidy of 700,000 leva from the Agricultural and Co-operative Bank of Bulgaria.

The elections took place on June 22, 1938, and shortly after the Chambers held regular meetings.

Agricultural credit.

The credit operations of the Agricultural and Co-operative Bank of Bulgaria are carried on principally through the co-operative societies, the commercial transactions of which it finances.

With the support of the Bank the co-operative societies have played an important part in the trade in cereals, wool, lambs, tobacco, etc. and in dairying industry and other industries processing agricultural products. Their members have profited greatly by their activity.

In recent years, the Agricultural and Co-operative Bank of Bulgaria has mainly operated fixed term credit earmarked for defined purposes. The results have been highly satisfactory. The Bank has granted credits of this kind up to 289,835,000 leva in 1936 and up to 404,405,000 leva in 1937. At the end of 1937 the Bank granted credits for nearly 3,131,000,000 leva to a large number of growers and craftsmen; out of this sum 2,018,000,000 leva were distributed by means of the co-operative societies.

Co-operative societies involved in difficulties are permitted by the Bank to repay their debts by means of a system of amortization; at the end of 1937 these payments amounted to 472,000,000 leva approximately: in this way the Bank has renounced the interest payments on a sum of 343,756,000 leva.

Agricultural insurance.

Hail insurance was started in 1911. It is optional and may be operated on any crop. This insurance is effected by the Agricultural and Co-operative Bank by the intermediary of communes.

The following table shows the development of insurance during the last three years:

Years	Number of insurance policies	Capital insured leva	Premiums paid leva	Number of persons receiving claim awards	Claim payments made leva
1936	167,055	1,165,216	35,771	32,975	33,489
1937	194,930	1,381,716	40,500	34,034	33,464
1938	200,012	1,400,000	41,505	—	—

Livestock insurance was also instituted in 1911 on a mutual basis. This type of insurance is also organised by the Agricultural and Co-operative Bank and is operated through a special association for each village.

The policy holder receives compensation in all cases in which the animal die in consequence of disease or accident, or has to be killed. The following table shows the development of such insurance during the last three years:

Year	Number of associations	Number of insured persons	Number of animals insured	Capital insured, leva	Premiums paid, leva	Head of stock on which claims were paid	Claim payments made, leva
1936.	2,243	94,549	185,106	465,395	7,917	4,298	7,118
1937.	2,520	121,308	237,602	662,118	11,215	5,290	9,710
1938.	2,707	148,060	290,922	920,399	16,486	3,518	7,098

Consolidation of holdings.

This measure is of primary importance in Bulgaria. Consolidation is under the direction of the State or of the communes. Results for 1936 are: consolidation completed in 8 villages accounting for a total area of 21,000 ha.; preparatory operations carried out in 23 villages for an area of 21,000 ha.; preparatory operations begun in 16 villages for an area of 56,000 ha. During a period of 12 years from 1926 to 1938, consolidation has been completed in 55 villages for an area of 202,000 ha., that is to say, over 5 per cent. of cultivated land; including also the villages where consolidation is in progress, the total area is 360,000 ha., or 8.3 per cent. of all land under cultivation.

Internal land settlement.

The mountainous regions of Bulgaria afford little means of subsistence to the population and hence, in view of their hardships, land settlement has been organized in the interior on more fertile lands, to which the mountain population has been removed.

FRANCE

The exchange rate of 179 francs to the pound sterling, fixed last May by the French Government as the limit in no event to be exceeded, has not been exceeded in spite of political events and the continued high level of public expenditure. It is true, however, that the pound itself has fallen in relation to the dollar and therefore the franc also, relatively to the dollar. A new estimate of the gold reserve of the Bank of France fixes the depreciated value of the franc at 170 francs to the pound sterling.

Foreign trade has followed a favourable course. From August to September the value of imports fell by 175,500,000 francs while exports advanced by 167,000,000. From September to October, the total value of French foreign trade appreciably increased, both imports and exports. Imports advanced by 345,000,000 francs and

exports by 177,000,000. Exports thus reached the highest figure registered for many years. The deficit on the monthly visible balance remains appreciably lower than that of August and of any earlier month of this year.

The index of prices of national products has remained almost stationary. There has been a rise in the prices of imported products, which from 603 at the end of August rose to 615 in the last week of September and to 626 at the end of October.

The harvests of secondary cereals have been larger than were anticipated. The late autumn crops of mangolds and of other fodder vegetables were abundant. The damage done to vineyards by the drought and by spring frosts was to a great extent repaired. The vintage yield is 57,908,000 hectolitres as compared with 51,000,000 in 1937 and 39,000,000 in 1936.

The weighted index of wholesale prices of agricultural and food products, calculated by the General Statistical Office on the basis 100 in 1913, has risen slightly; from 625 at the end of August to 631 at the end of September and to 644 at the end of August to 631 at the end of September and to 644 at the end of October. If however this index is analysed, it is seen that this net rise has been due to very diverse trends. In September it was the index of prices of crop products which had risen (under the influence mainly of the rise in the prices of wheat on the wholesale market, of flour and of sugar, and in spite of a continuous fall in the prices of secondary cereals, of oats in particular); in October, when the influence of the rise of wheat prices was much less strongly felt, the index lost nearly all the ground gained in September. The index of prices of animal products which had fallen in September—in spite of a rise in milk prices and because of a decline in meat prices which occurred at the end of the month—increased very considerably in October.

The larger consumption of fertilisers, in spite of high prices, is evidence of the prosperity of agriculture.

I. — MEASURES AFFECTING MARKETS AND PRICES

Franco-Ecuadorian Trade Agreement.

On November 1, 1938 France signed a new trade agreement with Ecuador. This agreement ensures the most favoured nation treatment to the products of France and of her overseas possessions. Ecuador obtains the most favoured nation treatment in France and in the French Empire. The agreement was made for one year and may be extended by tacit consent.

General price policy.

The requirement of previous authorisation for increases in wholesale prices has been abolished by a decree-law of November 12, 1938 (1).

None the less any increase in wholesale and half wholesale prices of industrial products the sale of which escapes normal conditions of competition may be prohibited by order countersigned by the Ministers of National Economy and of Commerce. The list of these products was fixed by order of the same Ministers; it includes chemical and organic fertilizers, lime, and copper sulphate.

(1) *Journal Officiel*, November 13, 1938.

The wheat market.

Customs tariff on advance export. — The system of advance exports of wheat and flour products, in force for the last two years, is maintained for the present season.

The advance export of soft wheat brans, suspended from June 14, 1938, has been reestablished by a decree of October 19 (1).

The rebate on wheat imported to balance advance export of home-grown wheat in grain has been raised to 92 francs per quintal by an Order of September 26, 1938 (2).

Measures to promote export of wheat flours to the French Colonies. — By a decree of November 2, 1938 (3) the colonial market is reserved to flours of exclusively French origin. The consumption of wheat flours in the non-wheat-growing Colonies is about 700,000 quintals per annum, or the equivalent of a million quintals of wheat, which the mother country will thus be able to dispose of. To avoid an abrupt restriction of consumption because of a rise in prices the selling prices ruling in the Colonies (the same as prices on the international markets) will not be raised; but it is probable that exporting millers will receive from the Wheat Office a premium equivalent to the difference between these prices and the French prices. Systematic action is to be taken to increase consumption among the native populations.

Quota-fixing of wheat sales. — In view of the large surplus wheat crop and in order to avoid any recrudescence of overproduction, a decree-law of November 12, 1938 (4) provides that the Central Council of the Wheat Office shall, before February 1, 1938, fix an aggregate quota of sales of wheat for the whole country and shall allot it between the departments. The departmental committees will distribute these quotas among the individual growers. These quotas shall be enforced by a system of raising the charges on wheat for deliveries made beyond the quota. The additional charges thus prescribed shall be fixed in the same conditions as the wheat prices.

II. — MEASURES AFFECTING AGRICULTURAL ECONOMY IN GENERAL

During the period of depression in the summer of 1935 rents of farm leases and interest charges on mortgage debts were reduced by 10 per cent., by decree laws intended to relieve the burdens on agriculture. Since then, the economic position of the farmers has improved. The decrees which reduced these rents and charges have therefore been annulled (5), being the sole survivors, moreover, of a series of general economic measures.

ITALY

Movements of the prices of crop products and of products of animal origin, respectively, have in the last few months followed different trends. The national wholesale price index of the group "foodstuffs and raw materials of vegetable origin" rose from 87.1 in January to 93.5 in June and to 93.9 in August 1938.

(1) *Journal Officiel*, October, 21, 1938. — (2) *J. O.*, September 28, 1938. — (3) *J. O.*, November 3, 1938. — (4) *J. O.*, November 3, 1938. — (5) *J. O.*, November 13, 1938.

On the contrary the price index of the group "foodstuffs and raw materials of animal origin", after having reached 96.4 in January 1938, began to fall from the month of February (88.4) and this tendency to decline lasted till August (81.3). Taking foodstuffs only, the same tendencies may be observed in the two groups. Actually, the wholesale price index of foodstuffs of vegetable origin rose from 88.8 in January 1938 to 96.4 in August, and the price index of foodstuffs of animal origin fell from 98.8 in January 1938 to 81.6 in August.

As regards foreign trade, there was a decrease of more than 1,000,000,000 lire, or 35 per cent., in the adverse trade balance during the first half of 1938 in comparison with the corresponding period of 1937:

	1937 first half year (million lire)	1938	1938 + or — as compared with 1937
Imports	6,950.7	5,939.9	— 1,010.8
Exports	3,779.3	3,892.3	+ 113.0
Deficit	3,171.4	2,047.6	— 1,123.8

In the six months under consideration, the decrease in imports relates to the food-commodity group (— 65 per cent.); the increase in exports is to some extent due to increased sales of food-commodities (+ 6 per cent.), but principally to increases recorded for manufactured products (+ 15 per cent.).

The Italian Government has continued to develop its agricultural policy with the view of ensuring stability of prices at a remunerative level for the main agricultural products, largely by means of pools established for the purpose of collective sale.

I. — MEASURES AFFECTING MARKETS AND PRICES

Cereal market.

Wheat. — The Wheat Campaign is increasingly directed more and more towards more efficient intensive cultivation. Typical improvements in technique are elaborate dressings, proper manuring and use of selected seeds, all with the object of increasing yield per unit of area. As a result wheat production has shown the following advance since the period prior to the Wheat Campaign which was proclaimed in 1925:

Five-year period	Annual average production quintals
1918-22	46,000,000
1923-27	57,000,000
1928-32	66,000,000
1933-37	72,000,000

An increase of 11 million quintals was thus obtained in the second five-year period as compared with the first, of 9 million in the third period as compared to the second, and of 6 million in the fourth as compared to the third period, this increase relating to a total area under wheat varying around 5,000,000 hectares.

The average yield per hectare has risen in the same periods from 10.2 to 12, 13.6 and 14.3 quintals respectively.

The wheat crop rose to 80,635,570 quintals in 1937 and to 80,917,810 in 1938, with average yields per hectare of 15.6 and 16.1 respectively.

One of the means employed in Italy for encouraging growers to improve their wheat crops consists in awarding prizes by a national competition. For the year 1938-39 a sum of 3,000,000 lire was set aside for this purpose. This competition has been recently extended so as to include the various branches of agricultural production. The following sections are in fact included: (1) section of increase in unitary yield of wheat; (2) section for scientific cultivation of lands; (3) for increased production of maize, beans and potatoes; (4) for advance in forage crops and stock-breeding; (5) for increase in prime products of market-gardening (decree of the Head of the Government of 30 June 1938 (1)).

A "National Register of selected strains of wheat" was set up at the Ministry of Agriculture and Forests by the Law of April 28, 1938 (2), for the better attaining of technical improvements in wheat-growing. This Law requires the official entry in the Register of those strains which, at that date, had already been bred, exhibited and described by State institutes or bodies under the authority of the Ministry of Agriculture, with particulars of their racial and botanical characteristics. A specially appointed Committee must approve the varieties to be registered. Other varieties may, on application, be subsequently entered in the Register. Selected strains of wheat are held to be those which fulfil the following conditions: (a) constant botanical characters; (b) established crop and technological properties; (c) high productivity, proved by unit yields later than the 1925-26 season, which can be relied upon to increase the national production of cereals.

To increase the effectiveness of the action of the provincial commissions for wheat-growing propaganda, a sum of 6,900,000 lire has been placed at their disposal for the campaign 1938-39. In the same way, a sum of 4,150,000 lire has been granted to experiment institutes, to assist their work.

By effect given to a resolution of the Cereals Corporation at its meeting of July 3, 1938, it was prescribed that two types of flour only should be placed on the market: type A, which is to be prepared in a proportion not exceeding 10 kg. of flour per quintal of wheat, and which is to be employed for cake and pastry making, for making of biscuits, of *grissini* (long slender sticks of bread), of diet bread, and for the baking of small fancy breads; type B, which is to be used in the baking of bread for ordinary consumption.

Rice. — The Ministry of Corporations, by a circular of September 17, 1938, has regulated the rice market as follows for the 1938-39 season. From October 10 onwards, all rice growers will be able to obtain an advance of 94 lire per quintal of rough rice, against guarantee of the product which may remain in the hands of the grower. The interest charges will be paid at 2 per cent. per annum by the National Rice Office. From 31 July 1939, the Office will, further, purchase directly from growers that part of their crops which has not been sold to date, and that at the price of (a) 102 lire per quintal of rough rice "Originario", of a 65 per cent. yield; (b) 109 lire per quintal of rough rice "Maratelli", of a 60 per cent. yield; and (c) 135 lire per quintal of rough rice "Vialone", of a 56 per cent. yield.

In order to guarantee the normal course of sales and to maintain the retail prices of rice without variation for the whole year, basic prices have been fixed for the different types of rough rice for the four quarters of the year ending respectively December 15, 1938, March 15, June 15 and September 15, 1939.

(1) *Gazzetta Ufficiale del Regno d'Italia*, Rome, July 14, 1938. — (2) *G. U.*, May 23, 1938.

For the same quarters the market prices of different types of processed ~~rice~~ have been fixed in the same way.

Finally, for price maintenance and for suppression of speculation, the Office may proceed to the total or partial requisition of rough or processed rice.

Wine market.

By the law of June 10, 1937 on vine-growing and wine-making (1) all persons undertaking wine-making are obliged to place in stock a part of the new vintage wine. This proportion of the vintage must be placed at the disposal of the newly created National Office for Distillation of Wine Products, to be used for production of alcohol. A Ministerial Order of September 20, 1938 (2) requires the declaration of the quantities of wine made from the grapes of the 1938 vintage, as well as of the formation of a stock of 10 per cent. of these same quantities.

Oil market.

To meet the shortage of home-produced olive oil, a Decree Law dated August 25, 1938 (3), introduced measures for the promotion and improvement of olive cultivation. A sum of 40 million lire was allocated for this purpose. The bulk of this sum, *viz.* 36.5 million lire, is to be used to subsidize the extension of the acreage planted with olive-trees; 2 million lire are to be used as bonuses for increased olive production and will be awarded as prizes in a national competition, opened by a Decree of October 6, 1938 (4) of the Minister of Agriculture and Forests.

The plan for extending the acreage under olives comprises: (1) for olive groves: (a) the grafting of wild olive trees; (b) the planting of fresh groves; (2) for scattered trees: (a) the grafting of wild olives scattered on different types of land; (b) the planting of olive trees in mixed cultivation.

The conditions of eligibility for awards laid down by the national competition, together with the lines indicated for improvement of the technique of olive-growing, are as follows: (a) scientific working of the land; (b) adoption, also by means of grafting, of approved varieties of olive trees recognised as being adapted to the ecological conditions of the region where the plantation is situated; (c) suitable distance between trees; (d) proper preparation of the ground; (e) scientific manures, organic or chemical; (f) scientific pruning with a view to increase of yield; (g) control of plant pests, whether of animal or vegetable origin.

Market of textile fibres.

The Higher Commission of Self Supply, at its meeting of October 13, 1938, declared necessary for the textile industry the compulsory utilisation of given percentages of textile fibres of national origin in all the woven goods intended for home consumption.

Wool. — In 1937, pooling and collective marketing were extended to wool. An innovation was introduced by the Decree-Law of April 11, 1938 (5) enacting that wool

(1) See "Chronicle" on Italy in the *Bulletin* of March 1938. — (2) *Gazzetta Ufficiale*, October 4, 1938. — (3) *G. U.*, September 21, 1938. — (4) *G. U.*, October 20, 1938. — (5) *G. U.*, July 18, 1938.

is to be consigned to the pools in the raw state directly by the wool growers and not by dealers. Growers are free to retain 2 kg. of wool per member of family. Wool imported from foreign countries or from the Italian colonies for the making of mattresses must also be consigned to the pools. Thus, all the trade in wool, both of national production, or imported, will be concentrated in the pools.

The Wool Council, which is directly subordinated to the Ministry for Foreign Trade and Exchange has been called upon (decree of July 27, 1938 (1)) to exercise the following functions: (1) to make proposals as to the procedure for the importation and distribution of foreign and national wools so as to encourage the increase of national production and the export of the products of national industry; (2) to follow the movement of imports and distribution of wools, and the exports of derived products, as a whole and for each manufacturing establishment; (3) to regulate wool imports in relation to the quotas arranged by the trade agreements with foreign countries; (4) to ensure that the export of wool derivatives to countries applying import quotas, be maintained up to the limits of these quotas.

Cocoons. — The price of white cocoons produced in the season 1938 has been fixed (decree of September 5, 1938 (2)) at 10.50 lire per kg. of fresh cocoons, for marketable lots of average quality. By marketable cocoons of average quality are understood those with a yield of one kg. of silk per 10 kg. of fresh cocoons.

Livestock market.

Since July 1, 1938, the importation of livestock has been placed in the hands of a single organisation for the whole Kingdom, *viz.*, a company formed by breeders of, and dealers in livestock, which is responsible for regulating the purchases and the distribution of foreign animals in such a way as not to disturb the national market. Previously the importation of a certain quantity of cattle and of meat—mainly reaching certain centres of Northern Italy which have an influence on the trend of the national market—was one of the main causes of price fluctuations. Hence the Government has recognised the necessity of regulating as indicated the entry of quotas of livestock admitted into Italy. By a Decree of May 18, 1938 (3), import duties were raised from 30 to 85 lire per head for oxen, bulls, cows, heifers and bullocks; from 38 to 106 lire per head for calves of weight lower than 300 kg. and from 32 to 90 lire per head for calves of over 300 kg.; the duty on fresh meat, even chilled, was raised from 80 to 200 lire per quintal, that for frozen beef from 80 to 140 lire and that on other frozen meats from 35 to 200 lire per quintal.

These measures became more urgent owing to the increased supply of home-reared livestock just then reaching the market as a result of the shortage of forage and of other feeds. This scarcity obliged the breeders to dispose of an unusual percentage of their animals, and this had serious effects both on prices and on the herds.

As a remedy, the Government: (1) reduced railway rates for the transport of the chief stock feeds; (2) allowed import duty free of a considerable quantity of sugar-cane molasses; (3) instructed the Italian Federation of Agricultural Consortia to collect all the bran produced by the mills and to distribute it to farmers at a fair price.

(1) *Gazzetta Ufficiale*, September 29, 1938. — (2) *G. U.*, October 24, 1938. — (3) *G. U.*, May 20, 1938.

Finally, by a Decree of September 21, 1938 (1), the Government undertook to take part up to 40 per cent. of the cost in the establishment of depots for the preparation of concentrated feeds. A subsidy in the same proportion was assigned to the expenses of establishing slaughter houses equipped with refrigerating plant.

Cheese market.

A Decree-Law of May 17, 1938 (2) fixed the minimum fat content of various types of cheeses: 50 per cent. for soft specialized local cheeses; 45 per cent. for other soft cheeses; 45 per cent. for Swiss varieties of cheese; from 25 to 32 per cent., according to kind, for *Grana* cheeses; 27 per cent. for other hard cheeses; 42 per cent. for local melted cheeses; 44 per cent. for cheeses such as *Mozzarella* from cows' milk; 48 per cent. for *Gorgonzola* cheese; 45 per cent. for cheeses from sheep's or buffaloes' milk.

Fixing of consumption prices.

In order to prevent market fluctuations and an unjustified rise in the cost of living, the Central Corporative Committee has been authorised (Decree-Law of June 16, 1938 (3)) to fix maximum selling prices for commodities of whatever kind. The corporations, in their respective spheres of activity, may be called upon to examine questions relating to prices of commodities and of services. In their turn, the presidential committees of the Provincial Councils of the Corporations fix the prices and control them in their own area. They draw up from time to time a list of maximum prices for the wholesale sales to the retailer and for retail sales of commodities of a more extended consumption.

II. — MEASURES AFFECTING AGRICULTURAL ECONOMY IN GENERAL

Provincial consortia of agricultural producers.

During recent years consortia to encourage the cultivation of olives, vines, hemp, etc. as well as new organisations for the storage and collective marketing of certain products, have been added to the original consortia established for protection against crop pests. All these autonomous bodies generally have territorial competence coinciding with the provincial administrative systems; their somewhat complicated and costly operations proved incompatible with the Government's policy of autarchy. A Law of June 16, 1938 (4), establishing the "Provincial Consortium of Agricultural Producers", removed these disadvantages by grouping provincial agricultural economic organisations into a single institution, thus securing the necessary unity of action for the full execution of the plans of the Corporations. In addition, this central provincial organisation carries on and coordinates all the tasks which had previously devolved on the various consortia and agricultural organizations, with the exception of the activities of the Consortia of Land Reclamation and Improvement.

(1) *Gazzetta Ufficiale*, November 15, 1938. — (2) *G. U.*, August 8, 1938. — (3) *G. U.*, September 13, 1938. — (4) *G. U.*, July 21, 1938.

The provincial consortium carries out the instructions of the National Agricultural Corporations. In particular, it undertakes: (a) measures for the improvement, regulation and increase of agricultural production; (b) protection against plant diseases, control of insect and other pests; (c) construction and administration of stores and of equipment for preserving, grading and processing agricultural products and by-products.

The consortium organizes the co-operative marketing of products which have been stocked in accordance with the law or at the request of the producers. It may utilize the original agricultural consortia for operations of storage, processing and marketing of products.

The new body enjoys legal status; it consists of sections which likewise enjoy legal status and also a separate administration and accountancy department for each respective branch of production: cereals, vines, olives, vegetables and fruit, livestock and textile fibres.

The consortium is the legal representative of all the owners and growers engaged in agricultural production, whilst the sections are the legal representatives of all those concerned in the particular branch of activity which they represent.

As in every corporative body, the administration of the sections is entrusted to delegates representing the classes of producers (owners, labourers and technicians) and the National Fascist Party; intervention by Government representatives is provided for.

The administrative expenses of the consortium are met either by the subsequent profits of the organisation, or by deducting a fraction of the price of the product stored and marketed, in cases where the consortium guarantees the collective sale of the products.

The various provincial consortia are affiliated to a National Federation with headquarters in Rome.

Close co-operation between the agricultural syndical organisations and the agricultural economic organisations is assured by the appointment of the Chairman of the National Fascist Confederation of Farmers as President of the Federation, and the Chairman of the National Fascist Confederation of Agricultural Labourers as Vice-President. Similar co-ordination is achieved in the provincial organisation.

The consortia and their Federation are under Government control.

The consortia are empowered, independently of regular loans, to contract loans for the construction and administration of stores, and also for general purposes of storage, grading and processing of agricultural products and by-products.

Re-organisation of the original agricultural consortia.

From the standpoint of the organisation of production and of agricultural markets, some mention should be made of the Decree-Law of 5 September 1938 (1), dealing with the reform of the character and of the organisation of agricultural consortia. These latter are co-operative societies the object of which is the joint purchase of food-stuffs, farm machines and farm requisites, for resale to members. They are also engaged in the sale of the products grown by the members. Since 1892 these societies have been grouped in a National Federation which is the largest co-operative institution in Italy for trade in farm products and which assists farmers not only in the economic sphere but also on the technical side. During these last few years the

(1) *Gazzetta Ufficiale*, October 18, 1938.

Federation has been very active in regard to the export of market garden and orchard products, the extension of the use of farm machinery, of selected seeds, of concentrated feedingstuffs and in the organisation of wheat pools.

As already stated, the Law of June 16, 1938 on the Provincial Consortia of Agricultural Producers prescribes that for all arrangements relating to preservation, handling and sale of products, the services of the agricultural consortia may be utilised by the new organisations. Once so wide a sphere of action, within the framework of the new economic organisation, was assigned to the earlier consortia, these latter could no longer be regarded as merely co-operative trading societies. They were bound to take on a different aspect, in accordance with the greater economic importance they derived from their new functions. Thus, the Decree of September 5, 1938 declares that the already existing agricultural co-operative societies lose their traditional character and assume that of public utility associations. In each province the new agricultural consortia are grouped into a single provincial organisation, the amalgamation being compulsory. The Provincial Consortia of Growers will form part of the new agricultural consortia. The Italian Federation of Agricultural Consortia also loses its commercial character and assumes that of a public utility association. All the provincial agricultural consortia form part of this Federation. The National Federation of Provincial Consortia of Agricultural Producers is moreover linked with the Italian Federation of Agricultural Consortia.

This latter Federation and the Provincial Consortia of Agricultural Producers are under the supervision of the Ministry of Agriculture and Forests.

NORWAY

The economic situation of Norwegian agriculture during the two agricultural years 1936-37 and 1937-38 cannot be described as unfavourable. As may be seen from the following table, the general price index of agricultural products (1909-1914 = 100) increased from 138 to 142; those of prices of farming requisites and of wages have increased from 143 to 151 and from 152 to 162 respectively. The results of farm accountancy as calculated by the Royal Society for the Welfare of Norway however show that, in spite of the unfavourable trend of prices and a harvest of poorer yield than that of the previous year—the value of the 1935 harvest was 98.3 per cent. of the average while that of 1936 was only 88.6 per cent.—a constant adaptation on the part of the farmers, led in 1936-37 to an improvement in the financial situation of Norwegian agriculture. Whereas in 1935-36 for certain selected farms in various parts of the country, the net return per hectare was 102 crowns, or 3.36 per cent. of the capital engaged, the corresponding figures in 1936-37 were 115 crowns and 3.7 per cent.

Accountancy results for the farming year 1937-38 are not yet published, but to judge by the trend of prices and the good harvest of 1937 (107 per cent. of the average) they will very probably point to a further improvement in the economic situation of agriculture.

The price index of farming requisites rose from 151 in 1936-37 to 164 in 1937-1938, or 13 points only, and that of agricultural products from 142 to 162, or 20 points. It is true that there was a still larger increase in the wages index (from 162 to 189), which from the point of view of accountancy represents a reduction of profit; however in a country such as Norway where small farms are in the great

Index-numbers of the prices of agricultural products and of the means of production for the agricultural years 1935-36 to 1937-38.

	1935-36	1936-37	1937-38
Cereals	146	155	174
Potatoes	174	133	189
Hay	138	155	116
Crop products	154	147	167
Milk.	140	147	167
Pigmeat	110	113	121
Other meat	145	154	195
Eggs	98	108	118
Livestock products	134	140	160
General price-index of agricultural products . . .	138	142	162
Fertilisers	85	90	98
Concentrated feeds for dairy farms.	120	131	144
Concentrated feeds for pig-rearing	117	128	141
Building materials	157	167	178
Machines and implements	173	189	204
Farming requisites	133	144	156
Household requisites	156	161	175
General index of prices of farming and household requisites	143	151	164
Wages	152	162	189

majority and where, in consequence, the greater part of the work is done by members of the family, the increase shown in accounts in the cost of labour in reality represents an increase in the income of the farming family.

In the first months of the present agricultural year (1938-39), indices of the prices of agricultural products and farming requisites so far published show a not unfavourable trend. The wages indices for these months have not yet been published.

I. — MEASURES AFFECTING MARKETS AND PRICES

During the years 1936-37 and 1937-38, the Norwegian Government took no really important new measure affecting the market of agricultural products, and earlier measures renewed to cover these two years were not materially altered. As however Norway appears in this Chronicle for the first time, a brief survey of these measures will be given.

Cereals.

As in former years, the State had a monopoly over the import of wheat, rye, barley and oats, as well as of their milling products (law of September 1 ove 1929 on the national cereal supply) and the State Monopoly was required to purchase all the home-grown cereals offered for sale and to pay a certain premium for them over and above the c. i. f. price at Norwegian port. A similar premium is also paid to all growers for cereals sent by them for grinding in country mills for their own consumption. This latter measure is the more important for the large mass of Norwegian farmers as only a small number of them grow cereals in quantities that leave

marketable surpluses worth mentioning. For transport from the grower's granary to the consignment depot of home-grown cereals sold to the Monopoly, allowances, regulated by special provisions, are made by the State. The premiums, which at first were 4 crowns per quintal for all cereals, have been increased from time to time.

The regulation of the cereals market has undoubtedly brought about an increase in the area sown and in the unitary yields; considerable further progress however would have to be made before self-sufficiency in cereals could be achieved in Norway. The cereal crop of 1937, which at 415,000 metric tons is a record figure (with the exception of the compulsorily increased production of 1918), covered only 55 per cent. of the normal national requirements.

This fact explains the provision in the Law of July 1 1929 conferring on the Cereals Monopoly a further important function, that of ensuring the presence at all times in the country of stocks of cereals which, added to the crop in prospect, represent the total consumption of the nation, limited to war time requirements. The Monopoly has, for several years past, arranged for the storage necessary for this purpose

Milk and dairy products.

This market in 1936-37 and in 1937-38 has again profited by several measures taken in previous years: the price equalisation levy and the levy on milk sales, the levy on margarine, prohibition of importation of butter, etc.

Owing to the increase in milk production, the decline in butter and cheese prices and the improvement in means of transport which enabled producers at a distance to sell their milk for liquid consumption on town markets at higher prices than before, the situation had become difficult towards 1930 and it became evident that the only possible solution was the formation of an association grouping all or nearly all producers. Such an association would be in a position to impose a levy on milk sold for direct consumption, thus balancing the lower price of milk sold for butter and cheese manufacture. This organisation was actually formed sometime later.

In 1930 the country was divided into a number of districts in each of which there was set up a Milk Centre to which all milk producers in the district were invited to belong; in 1931, these Centres were grouped into a national association, the National Federation of Norwegian Milk Producers. This association works in close connection with another organisation of Norwegian milk producers which had been founded in 1928, the Norwegian Dairies' Export Association. At the present time there are eight Milk Centres, with a total membership of 70,000.

Very effective support was given to the efforts for the organisation of the milk and dairy produce market by the Law of June 6, 1930 for the encouragement of the marketing of agricultural products. This Law, again amended in July 1936, authorised the Government to impose a levy on the sale of all milk and milk derivatives and of various other animal products (1). The receipts from this levy are utilised for the promotion of co-operative marketing of the products. In June 1931 an amendment was introduced to this Law which has greatly contributed to the stabilisation of the milk market. According to this amendment, the Government, or its representative, is empowered, in all the districts of the Milk Centres, where the majority of the milk producers have accepted the equalisation levy on milk for liquid consumption, to impose a corresponding levy on the minority. Although no Centre began operations before being assured of the

(1) The levy on milk was 0.25 öre per litre.

delivery of at least 80 per cent. of all milk produced in the district, and although in certain districts, practically all producers had joined the Centre, the competition of producers remaining outside the group was a cause of serious difficulty to the Centres and threatened the whole system of milk market regulation.

The Law on the compulsory admixture of a certain percentage of butter with margarine, a law in force since November 1, 1931, and the levy on margarine imported or manufactured in the country (Law of June 29, 1934 introducing temporary crisis measures in support of agriculture and amending Law of June 21, 1935) are among the more important measures which have been taken in favour of milk producers. The percentage of admixture of butter to margarine has varied from time to time from a minimum of 2.5 to a maximum of 20 per cent., according to market conditions. The levy on margarine during the period under review has been, as prescribed by the law, 10 öre per kg. diminished or increased by 1 öre per kg. for every one per cent. of admixture above or below 10 per cent. The proceeds of this levy are paid into a special fund used for providing subsidies for making of dairy butter and cheese and farm or mountain butter in accordance with the requirements of the Ministry of Agriculture, and also for equalisation of the price of milk for direct consumption with that of milk for butter and cheese making. Subsidies are also paid for the equalisation of transport costs of butter and cheese.

Other measures for the protection of the milk market, which were in force during the period under review, besides the prohibition of butter imports, are the prohibition of the importation of condensed milk and milk powder, the issue of import permits for animal fats and the State subsidies for the purpose of replacing margarine by butter in the army, the hospitals and almshouses, and for increasing the consumption of milk by the needy classes. This latter subsidy will make possible a reduction of the full price of milk varying between 5 and 25 öre per litre, according to the economic situation of the recipient and the retail price of milk in the locality. Thanks to State aid, the price of skimmed milk for human consumption may also be reduced in special circumstances by 5 öre per litre; this enables necessitous persons to obtain this milk entirely free in most places.

These various measures have made it possible to maintain the price of butter in Norway at about 1 crown per kg. above the world price, and the measures for the protection of the milk market have as a whole ensured for Norwegian agriculture an annual increase estimated at 40 million crowns approximately.

Stock slaughter.

In 1931, an organisation was set up in Norway grouping all the pig-breeders and known as the *Norges Fleskecentral*. This organisation two years later, on extending its operations to mutton, took the name of Norwegian Pigmeat and Mutton Union (*Norges Kjøtt-og Fleskecentral*). The purpose of this organisation, now having 90,000 members, is to sell members' products in Oslo, the most important local market and to salt and export killed meat. It has already achieved considerable success in its operations. The State aid of various kinds has been given and in particular by the application of the law on the marketing of agricultural products referred to above. As already mentioned in connection with the measures for protection of the milk market, this law empowered the Government to establish a levy, not only on dairy products, but also on pigmeat, mutton and eggs, in order to encourage co-operative marketing of these products. For example, the levy on the sale of all pigs intended for slaughter, and placed under communal or other official inspection, was during the year 1937-38 (Royal Order of April 9, 1937) 1.50 crown

for whole animal of more than 15 kg. and 0.75 crown for smaller animals or for half carcasses. For sheep slaughtered under official inspection, a levy of 0.25 crown per home-bred animal had to be paid and a similar levy on all mutton intended for salting and sale. In addition the Ministry of Agriculture has granted subsidies for the establishment of slaughter houses and the Parliament has voted fairly large credits for the purpose of increasing the consumption of pigmeat among the less well-to-do classes.

Eggs.

Endeavours have also been made to regulate the egg market by a levy on their sale, as authorised by the law on the encouragement of the marketing of agricultural products, but such a levy has not been found practicable. State aid has however been given for the organisation of the co-operative marketing of eggs and for the maintenance of the price on the national market, and export premiums have been granted the payment of which is covered by the levies on concentrated stock feeds, described below. An exporter to be entitled to a premium must hold an export permit.

Stock feeds.

In order to prevent the over-production of foodstuffs of animal origin and to encourage growing in Norway of fodder crops, the Law of June 29, 1933 on crisis measures already mentioned, contains a provision for the reduction and rationing of the consumption of concentrated stock feeds. In view of the difficulty of a strict enforcement of this provision, an amendment was introduced in 1935 which has remained in force over the period under review. According to the new provisions, a levy is collected on the purchase of all concentrated stock feeds, whether of foreign or of domestic origin. The amount varies according to the conditions of the world market, but can in no case exceed 6 öre per kg. Certain quantities are exempted. For small farms on which the yearly purchases of these feeds do not exceed 1,200 kg., the following quantities are exempted: 300 kg. per head for at least two year old cattle or a horse of equal age; 100 kg. per head for the same class of stock from 4 months to two years of age; 250 kg. per head for pigs for breeding; 150 kg. per head for porkers; 40 kg. per head for goats, etc. For farms on which the purchases of concentrated feeds exceed 1,200 kg. per annum, the quantities exempted are lower. At the end of the fiscal year, purchasers are reimbursed for the payments they have made on quantities exempted from the levy.

II. — MEASURES AFFECTING AGRICULTURAL ECONOMY IN GENERAL

In addition to the measures to assist agriculture, described above, which have been in force during the period under review, mention should be made of the amendments to the Law of July 23, 1915 on loans granted to be on favourable terms to small farmers in straitened circumstances to facilitate the formation of small farm holdings: reduction of rates of interest on debts contracted, etc. It is to be noted further that the provisional Law of July 29, 1934, amended in 1936, on the regulation of farm debts, was been extended with fresh amendments to July 1, 1939; under certain conditions, the maximum limit for obtaining mortgage loans has been raised from 80 to 90 per cent. of the taxable value, etc.

The Law of July 16, 1936 on farming credits to small farmers must finally receive mention. This law created a Central Fund for the granting of farming credits to local co-operative societies which themselves make loans of this type. The capital of the Central Fund was furnished by the State. Local societies may grant to individual members loans for farming expenditure up to three-fourths of the price of the articles purchased, without however exceeding the sum of 200 crown for each share held by the member in the society. The interest on these loans is not to exceed by more than one per cent. the rate of interest which the local societies must pay to the Central Fund.

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(*) List of abbreviations: bihebd. (biweekly); bimens. (twice monthly); bimestr. (every two months); déc. (every ten days); étr. (foreign price); fasc. (copy); hebd. (weekly); int. (home price); irr. (irregular), mens. (monthly); n° (number); N. S. (new series); p. a. (per annum); q. (daily); sem. (half yearly); s. (series); v. (volume); trim. (quarterly).

N. B. — Between brackets [/] are given translations and explanatory notes not appearing in the title of the review.

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